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THE ILLINOIS MEDICAL JOURNAL

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UNIVERSITY OF ILLINOIS

Official Record of the Proceedings of the Illinois
State Medical Society

MEETING AT SPRINGFIELD, MAY 15, 16, 17, 1900

AND THE

Proceedings of Affiliated City, County and District Societies, Together
With Editorial Discussions and Items of Interest to the
Practitioners of the State of Illinois

EDITED FOR THE SOCIETY BY THE
PUBLICATION COMMITTEE:

E. W. WEIS, M. D., SECRETARY
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SPRINGFIELD

E. J. BROWN, M. D., TREASURER
DECATUR

VOLUME L.--NEW SERIES, VOLUME II.
June, 1900 to May, 1901

SPRINGFIELD:
ILLINOIS STATE JOURNAL PRESS

GENERAL INDEX.

A Gynecologic Examination.....	557	National Association for the Study of	
Abortion, the Medico-Legal Status of.....	507	Epilepsy, etc (Spratling)	232
Acute Hemorrhagic Encephalitis.....	499	Paralysis of the Sphincters (Andrews).....	411
Adams, A. L.: Sympathetic Ophthalmia,		Resolutions of the Adams County So-	
with reports of cases.....	441	cietiy with Reference to Meeting of 1902	464
Address: Presidents: Tendencies of Mod-		Smallpox and the Law.....	574
ern Medicine.....	3	Stand by the Committee (Pettit).....	310
Address: Medicine or Surgery.....	147	Suit for Malpractice (Matthews).....	366
Address: Jeremiah XXXI-15.....	51	Suprarenal Capsule in Organic Heart	
Adenoid Vegetations.....	396	Disease (Floersheim).....	413
Allaben, J. E.: The Application of Forceps.	14	The Thirteenth International Medical	
Alphabetical List of Members of the Chi-		Congress (Harsha).....	227
cago Medical Societies.....	327	The Work of the Legislative Committee	
Anaesthetics.....	389	(Corr).....	230
Andrews, Edmund: Paralysis of the		Corrigenda.....	422-480
Sphincters of the Anus, etc.....	483	Cotton, A. C.: Address: Jeremiah XXXI-15	51
Ankle Sprains.....	99	Davis, N. S.: On the Evils Resulting from	
Announcement of Legislative Committee..	82	Naming Disease, etc.....	151
Appendicitis—Perineal Operation in the		Diagnosis of Rectal Diseases.....	489
Male, Vaginal Incision in Female.....	114	Diagnosis of Tumors of the Spinal Cord and	
A Report of 240 Cases of Mitigated Small-		Its Membranes.....	120
pox, with Symptoms, etc.....	156	Diagnostic Sign of Smallpox.....	565
Bacon, C. S.: Mutilating Operations in Ob-		Dickerman, Edw. T.: Hypertrophy of the	
stetrics.....	63	Pharyngeal or Luskka's Tonsil.....	396
Black, J. N.: Pneumonia and Its Treatment	350	Dinner to Professor Fenger.....	141
Brayshaw, Jos.: Chronic Gastritis.....	206	Discussion of the Paper, "Have We Small-	
Brower, D. R.: The Colonial Treatment of		pox".....	166
Epilepsy.....	562	Discussion of the Paper of Dr. Edlen (March	
Brown, Everett J.: Leukaemia and Pseu-		number).....	524
doleukaemia.....	262	Editorials:	
Caesarean Section and Porro Operations..	25	Abolish the Coroners.....	278
Caldwell, W. S.: Pneumonia.....	444	Amend Act Concerning Corporations...	358
Calendar of Medical Societies.....		Amputation of Leg.....	279
.....95-143-191-239-535-603		Announcement of Committee to Take	
California As a Health Resort.....	116	Charge of Preliminary Meeting..	520
Center, C. D.: Acute Hemorrhagic Encepha-		A Notable Election.....	412
litis.....	499	A Notable Victory.....	571
Chapman, H. W.: Surgical Introspection..	567	Appointment of Delegate to the Ameri-	
Chenoweth, W. J.: If the Cause is Removed,		can Med. Cong. on Tuberculosis.....	520
the Cure Will Follow.....	401	Call for Preliminary Meeting.....	572
Cholelithiasis.....	555	Called Down.....	522
Christie, Robt. J.: Chylous Ascites.....	387	Change Date of Meeting.....	307
Chronic Gastritis.....	206	Chicago Dipoma Mills Abolished.....	179
Chronic Inflammation of the Tear Passages	435	Collodion in Exophthalmic Goitre.....	521
Church, Archibald: The Treatment of the		Committee on Pathological Exhibit.....	178
Opium Habit by Bromide Method.....	291	Competent Official Should Be Retained...	306
Chylous Acites.....	387	Danger in Healing Hobbies.....	462
Colonial Treatment of Epilepsy.....	562	Decadence of the Sects.....	359
Committe Report..	182	Defeat the Objects of the State Society.	307
Complications and Sequelae of Scarlet		Doctors and Druggists.....	361
Fever.....	391	Fenger Banquet.....	306
Consumptives, State Care of.....	539	Foxes Turn on the Hounds.....	134
Corr, A. C.: Address: Medicine or Surg-		Guard the Portals.....	41
ery?.....	147	Important Announcement..	306
Corr, A. C.: Farther Consideration of State		International Medical Congress....	228
Medicine and Sanitation.....	405	Intra-Spinal Cocainizing for General	
Correspondence:		Anesthesia.....	228
Brief Notes from the Pacific Coast (Hol-		Judicial Council.....	538-571
lister).....	414-523	Jubilee Issue.....	278
Complicated Cases from Practice (Carter)	180	Local Societies.....	412
Corruscations (Corr).....	522-573	Magnetic Healers.....	412
Dr. Rouse in the War of 1812 (Will).....	180	Medical Libraries.....	521
Endorsement of Dr. J. A. Egan.....	310	Meeting of the Judicial Council.....	360
From Southern Illinios (Mitchell).....	232	Meeting Notes.....	571
Illinois and California (Lane).....	366	Membership in the State Society.....	361
Legislative Committee (Black).....	311	Membership of the Society.....	571
Letter to Governor Yates (Committee of		New Medical Societies.....	521
Judicial Council).....	414	New Members of the State Board of	
Letter from J. Palmer Matthews.....	413	Health.....	278

New Trustees of the Eye and Ear Infirmary.....	520	Medical Education for Fifty Years in Illinois—N. S. Davis, Sr., Chicago.....	248✓
Organization of County Medical Societies.....	178	Reminiscences of the Early Days and the Hardships of the Pioneer Doctor—Wm. J. Chenoweth, Decatur.....	248
Osteopathy in Kentucky.....	134	Toasts—The Founders:	
Pernicious Legislation.....	462✓	Robert Boal, Lacon.....	244
Politics Versus Medicine.....	358	L. G. Thompson, Lacon.....	247
Rudolphus Rouse.....	135	Then and Now—James L. Stewart, Peoria.....	250
Smallpox Again.....	178	The Ideal Physician of the Future—F. P. Norbury, Jacksonville.....	256
State Board of Health.....	520-571✓	The Parson After the Doctor—Rev. D. F. Howe, Springfield.....	253
Statistics.....	228	Kelley, J. W.: Nephritis, with Report of Three Cases.....	199
The Habit of Case Taking.....	81	Kreider, George N.: Symphysiotomy.....	29
The Jubilee Meeting.....	40	Kreissl, F.: The Treatment of Senile Enlargement of the Prostate, etc.....	268
The New Act Regulating the Practice of Medicine in Missouri.....	521✓	Legislative Committee Report....	373-421-470✓
The Surgeon of the Small City.....	522	Legislative Committee, Announcement of..	82
The Peoria Meeting.....	572	Leukaemia and Pseudoleukaemia....	262
The 1902 Meeting.....	463	Lewis, Henry F.: The Management of Impacted Cases.....	57
Typhoid Fever During the Recent Spanish-American War.....	80	List of Delegates to Fenger Banquet.....	279
Vermilion County Society.....	571	List of Officers.....	194-482
Vivisection.....	135	Maley, Wm. H.: Anaesthetics.....	389
Volume Fifty.....	40	Marcy, M. S.: Complications and Sequelae of Scarlet Fever.....	391
Enlargement of the Third Tonsil.....	396	Matthews, J. Palmer: Action of the Kidneys in Health and Disease.....	394
Epileptic Colony.....	357	McAnally, J. T.: Is Pneumonia Contagious?.....	108
Everyday Headaches.....	297	McCord, T. C.: Report of the Fourth Illinois Vol. Inf. in War with Spain.....	34
Executive Committee Meeting.....	307✓	Medicine or Surgery?.....	147
Farther Consideration of State Medicine and Sanitation.....	405	Meeting of Suggestions.....	308
For the Good of the Profession.....	280	Meeting of the Judicial Council.....	361
Forceps, the Application of.....	14	Membership of the State Medical Society.....	593-601
Galvano-Cautic Radical Treatment of Senile Enlargement of the Prostate.....	268	Members of City and District Societies.....	422-432
Gehrman, Adolph: Observations as to the Efficiency of the Chicago Health Department Method of Fumigation.....	549	Miller, Kath.: Relation of the Physician to the Public Schools, etc.....	452
Goldspohn, A.: Two Cases of Intestinal Obstruction, etc.....	103	Miller, J. H.: Obstructions in the Pathway of Legitimate Medicine.....	566
Gonorrheal Conjunctivitis.....	257	Mitchell, H. C.: Have We Smallpox?.....	112
Group of Veterans.....	2	Mitigated Smallpox, 240 Cases of.....	156
Hairgrove, J. W.: Cholelithiasis.....	555	Moffett, W. T.: Imbibition of Water in Relation to Some Forms of Disease.....	399
Haight, Allen T.: Gonorrheal Conjunctivitis.....	257	Moyer, Harold N.: Tendencies of Modern Medicine (address).....	3
Halstead, A. E.: Rectal Fistula.....	195	Munson, S. E.: Our Milk Supply, Observations at Home and Abroad.....	168
Harris, M. L.: Treatment of Sac in Very Large Inguinal Hernia.....	303	Nance, Willis O.: Chronic Inflammation of the Tear Passages.....	435
Have We Smallpox?.....	112-166	Nephritis, with Report of Three Cases.....	199
Hemorrhoids, Treatment of.....	493	Norbury, Frank P.: Diagnosis of Tumors of Spinal Cord and Its Membranes.....	120
Henderson, N. H.: Treatment of Hemorrhoids.....	493	Notice to Delegates to Fenger Banquet....	277
Henry, R. H.: What Shall the Harvest Be?.....	503	Obituary:	
Herriott, E. L.: Practical Observation on the Clinical Effect of a Few of the Older and Newer Remedies.....	513	Edgar Bolles, M. D.....	140
Hollister, Jno. H.: California as a Health Resort.....	116	Ephraim Ingals, M. D.....	356
Hunt, Florence W.: Sanitarium Treatment of Tuberculosis.....	543	Obstetrics, Mutilating Operations in.....	63
Hunt, C. C.: A Gynecologic Examination..	559	Observations as to the Efficiency of the Chicago Health Department Method of Fumigation.....	549
Hypertrophy of the Pharyngeal or Luschka's Tonsil, etc.....	396	Obstructions in the Pathway of Legitimate Medicine.....	566✓
If the Cause is Removed, the Cure Will Follow.....	401	Ochsner, Edw. H.: Ankle Sprains.....	99
Imbibition of Water in Relation to Some Forms of Disease.....	399	Opium Habit, Treatment of, by the Bromide Method.....	291
Impacted Cases, the Management of.....	57	On the Evils Resulting from Naming Diseases, etc.....	151
Inguinal Hernia, the Treatment of the Sac in.....	303	Osteopathy in Kentucky.....	134
Is Pneumonia Contagious?.....	108	Organization of County Medical Societies.....	178
Intestinal Obstruction, Following Vaginal Hysterectomy, etc.....	103	Our Milk Supply, Some Observations at Home and Abroad.....	168
Items, State.....	93		
Items, State Board of Health.....	84		
Jubilee Banquet:			
Ephraim Ingals, M. D., Chicago.....	243		
E. P. Cook, Mendota.....	243		
Law and Medicine—Hon. Chas. P. Kane, Springfield, Ill.....	254		

Paralysis of the Sphincters of the Anus Caused by the Forcible Dilatation of that Orifice.....	483	Sangamon County Medical.....	90-234-283-317-419-476-530-579
Patrick, Hugh T.: Everyday Headaches.....	297	Southern Ill. Medical Association.....	236-317
Pennington, J. Rawson: Diagnosis of Rec- tal Diseases.....	489	St. Clair Medical.....	85-137
Percy, J. F.: The Technique of Version.....	421	Tri-County Medical.....	88-579
Pneumonia and Its Treatment.....	350	Union County Medical.....	471
Pneumonia, Contagious?.....	108	Vermilion County Medical.....	137-281-367-527-577
Pneumonia.....	444	Warren County Medical.....	233
Porro's Operation and Caesarean Section..	25	Will County Medical.....	473
Practical Observations on the Chemical Ef- fect of a Few of the Older and Some of the Newer Remedies.....	483	Winnebago County Medical.....	86-233
Public Schools, Relation of the Physician to, etc.....	452	State Board of Health Items.....	84
Pusey, Wm. Allen: The Present Treatment of Syphilis.....	339	State Items.....	93
Rectal Diseases, Diagnosis of.....	489	State Medicine and Sanitation, Farther Consideration of.....	405
Rectal Fistula.....	195	Sterility in the Male.....	209
Reed, Chas. B.: Caesarean Section and Porro's Operation.....	25	Sullivan, J. C.: Diagnostic Sign of Smallpox	565
Reis, Emil: Sterility in the Male.....	209	Surgical Introspection.....	567
Relation of the Physician to the Public Schools, etc.....	452	Sutton, E. M.: Appendicitis-Perineal Operation in the Male and Vaginal In- cision in the Female.....	114
Report of the Fourth Illinois Volunteer Infantry in War with Spain.....	34	Sympathetic Ophthalmia, with Reports of Cases.....	441
Rheumatic Disease of the Eye.....	439	Symphysiotomy.....	29
Robison, J. A.: The State Care of Con- sumptives.....	539	Synopsis of Bills of Interest to the Medical Profession Now Before the Legislature..	464
Roster of County Medical Societies.....	374-384	Syphilis of the Eye.....	347
Sanitarium Treatment of Pulmonary Tub- erculosis in Illinois.....	543	Syphilis, the Present Treatment of.....	339
Scarlet Fever, Complications and Sequelae of.....	391	Tendencies of Modern Medicine.....	3
Selected Topics in Connection with the Pathology of Delivery.....	8	The Action of the Kidneys in Health and Disease.....	394
Smallpox, Have We?.....	112	The Application of Forceps.....	14
Societies:		The Eye, Rheumatic Diseases of.....	439
Adams County Medical..	43-88-138-234-281	The Fenger Banquet.....	277
Aesculapian Society of the Wabash Val- ley.....	138	The Management of Impacted Cases.....	57
Brainard District Medical..	89-186-286-324-472	The Medico-Legal Status of Abortion....	507
Champaign County Medical..	87-189-315-576	The Mutilating Operations in Obstetrics...	63
Chicago Academy of Medicine.....	85-416	The Present Treatment of Syphilis.....	339
Chicago Medical Examiner's Association..	416	The Spanish-American War as Seen by the Military Surgeons.....	216
Chicago Neurological Society..	317-477-581	The Tear Passages, Chronic Inflammation of	435
Chicago Orthopedic Society.....	138	The Technique of Version.....	21
Chicago Pathological Society.....	283-321-417-472-529-578	The Treatment of the Opium Habit by the Bromide Method.....	291
Clay County Medical.....	86	The Treatment of Senile Enlargement of the Prostate, with Especial Reference to the Galvano Caustic Radical Treatment.	268
Clinton County Medical.....	417-471	Treatment of the Sac in Very Large In- guinal Hernia.....	303
Cook County Hospital Staff.....	472	Treatment of Hemorrhoids.....	493
Crawford County Medical.....	43-137-315-418	Treatment of Tuberculosis and Other Ab- scesses and Local Infection by Pure Car- bolic Acid, with Reports of Cases.....	511
Decatur Medical.....	86-137-316-417-474	Transactions, Official....	38-46-68-124-174-224
DeWitt County Medical.....	185-577	Tumors of the Spinal Cord and Its Mem- branes, Diagnosis of.....	120
Douglas County Medical.....	44	Two Cases of Intestinal Obstruction, Fol- lowing Vaginal Hysterectomy, etc.....	103
Fulton County Medical.....	368	Version, the Technique of.....	21
German Medical Society of Chicago....	370-416	Walker, G. W. & J. R.: The Treatment of Tuberculosis and Other Abscesses and Local Infections by Pure Carbolic Acid, with Reports of Cases.....	511
Hancock County Medical.....	137	Water in Relation to Some Forms of Dis- ease, Imbibition of.....	399
Jo Daviess County Medical.....	185-315-471	Webster, J. Clarence: Pathology of Deliv- ery.....	8
LaSalle County Medical.....	45	Wesley, Allen A.: Spanish-American War as Seen by the Military Surgeon.....	216
Livingston County Medical.....	576	What Shall the Harvest Be?.....	503
Macoupin County Medical..	285-577	Wilder, Wm. H.: Syphilis of the Eye....	347
McLean County Medical.....	87-282-577	Wilkinson, C. E.: Report of 240 Cases of Mitigated Smallpox, etc.....	156
Medical Society of Rush College.....	527	Will, O. B.: The Medical Status of Abor- tion.....	507
Medical and Surgical Society of Western Illinois.....	85	Woodruff, H. W.: Rheumatic Diseases of the Eye.....	347
Military Tract Medical Association..	282-318		
Montgomery County Medical.....	234		
Morgan County Medical.....	233-285		
Moultrie County Medical.....	141-282		
North Central Ill. Medical Association..	367		
Peoria City Medical.....	86-367		
Pike County Medical.....	139-235-316-368-576		

ILLINOIS Medical Journal

The Official Organ
of the
State Medical Society



A Monthly Bulletin
Edited by the
Publication Committee

Printed by
THE ILLINOIS STATE JOURNAL COMPANY.

Entered in the Springfield Postoffice as Second-Class Matter.

Volume L,
New Series, Vol. II. }
Number 1.

Springfield, Ill., June, 1900.

{ Subscription, \$3 a Year.
Single Copies, 25 Cents.

TABLE OF CONTENTS.

ORIGINAL ARTICLES.

Tendencies of Modern Medicine—Harold N. Moyer, M. D., Chicago.....	3
Selected Topics in Connection with the Pathology of Delivery—J. Clarence Webster, M. D., Chicago.....	8
The Application of the Forceps—J. E. Allaben, M. D., Rockford.....	14
The Technique of Version—J. F. Percy, M. D., Galesburg.....	21
Cæsarean Section and Porro's Operation—Chas. B. Reed, M. D., Chicago..	25
Symphysiotomy—G. N. Kreider, M. D., Springfield	29
Report of the Fourth Illinois Volunteer Infantry in the War with Spain—T. C. McCord, M. D., Paris.....	34

TRANSACTIONS.

Proceedings of Springfield Meeting.....	38
Preliminary Meeting of May 14.....	46

EDITORIAL.

Volume Fifty.....	40
The Jubilee Meeting.....	40
Guard the Portals.....	41

COUNTY AND DISTRICT SOCIETIES.

Adams County Medical Society.....	43
Crawford County Medical Society.....	43
Douglas County Medical Society.....	44
LaSalle County Medical Society.....	45

CORRESPONDENCE.

The German Medical Society.....	47
The European Excursion	47
Marriages, Deaths, Changes of Address....	48
Group of Veterans	2



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VETERANS ATTENDING THE JUBILEE MEETING.

The Illinois Medical Journal.

The Official Organ of The Illinois State Medical Society.

VOL. I.
New Series, Vol. II. }
No. 1.

Springfield, Ill., June, 1900.

{ SUBSCRIPTION
\$3.00 A YEAR.

TENDENCIES OF MODERN MEDICINE.*

BY HAROLD N. MOYER, M. D., CHICAGO.

It is difficult in the time at my disposal to sum up the tendencies of modern medicine, but it may not be unprofitable to make a hasty review of recent progress. As it was eloquently put by the prophet Esdras: "Show me, then, whether there be more to come than is past, or more past than is to come." For medical science there is more to come—we are but on the threshold of our science. Medicine has been the last of the great departments of human thought to come under the sway of the inductive method, which Bacon said would be so fruitful of invented works.

To describe the tendencies of modern medicine would require a volume. One can refer to a very few of the more prominent eddies in the current of progress. Medical organization, legislation, education and the expansion of the public health service, seem to call for most extended comment. I have so often spoken on the topic of organization and its necessity, that I fear I shall become tiresome. What a marvelous machine, which, as one politician described it, a machine that actually knows every voter in the State; capable, if organized and directed, of infinite good; not to be used for personal aggrandizement or selfish ends, but for the good of the people and to the honor of our profession. This compact organization of the entire profession was the dream of the founders of this Society. After fifty years, they see their work well advanced, but far from completed. That it will be attained, no one can doubt.

The medical profession is not doing its fair share of government in this country.

* Presidential Address delivered at the Fiftieth Annual Meeting of the Illinois Medical Society, at Springfield, May 15, 1900.

On the continent of Europe medical thought has been of preponderating importance in government. In France the Chamber of Deputies has more physicians than lawyers. The same is true of the Reichstag of Germany. The only antagonist whom Bismarck feared and respected was Virchow, for twenty-five years one of the leading legislators of Germany. The same is true of Italy; Baccelli was for years the leader of a great political party, and, at the same time a great teacher and a master of clinical medicine.

The legal profession has too long dominated the scene. If to legal attainments is added the glint of soldier straps, the combination seems quite irresistible. The combination of soldier-judge, or lawyer-colonel, seems as imperatively entitled to rule this country as the dukes and princes of the old world. We know how poor legal and military training are for the comprehension of sociological problems. I say it advisedly that no class or profession is so competent to deal with these topics as the medical. In the main the world is indebted to the medical profession for all of its scientific knowledge of criminals and the defective and dependent classes. Yet government, 80 per cent. of whose operations are concerned with these classes, is run by lawyers with a sprinkling of military experience. Another age will look back upon this and with the perspective of years will wonder why the intellectual advancement of our time was not represented in government, the same as we do now on the priest-ridden middle ages.

The practice of medicine is one of the private occupations which is affected with a quasi-public use. No one can compel a physician to visit a patient; he does not operate a franchise like a common carrier; yet most countries and States have deemed it necessary to legislate in the interest of the public, to prescribe the qualifications of phy-

sicians and establish a certain standard for professional registration.

In some way the public has come to look upon this as a special privilege accorded physicians, as conferring upon them a right which they did not formerly possess. A moment's thought will convince anyone of the erroneousness of such a conclusion. The right to aid the sick and succor the wounded was a common law right possessed by all, and the law has merely inhibited a natural right. In thus abridging the powers of the individual they have conferred nothing upon him, but have taxed him to the extent of requiring that he shall have a certain equipment.

From the fact that physicians have supported such legislation, the public has come to believe that certain rights were conferred that they did not formerly possess. In consequence there has been not a little opposition to legislation of this character, some even going so far as to claim that in this way there was being formed a medical trust. Physicians are not benefited by a medical practice act, but the public is. It is for the protection of the public health that such laws are passed. The interest that physicians feel in this legislation is no more and no less than any class of citizens ought to feel in having good laws passed and in seeing them properly enforced. We question sometimes whether physicians ought to descend into the arena of practical politics to secure legislation of this sort; not in a sense of pique because their advice is not sought, but simply if they only acted in an advisory capacity their influence would be greater. This kind of legislation is increasing, developing from natural causes because medicine is rapidly becoming an exact science. This knowledge not only belongs to the profession, but it is fast becoming the property of the laity. The people are more rapidly than we think comprehending the relations of pure water, food and hygienic surroundings to the preservation of health, and they know that the keepers of this special knowledge are the medical profession. Hence, an increasing confidence in the pro-

fession and a disposition to uphold it in its efforts to pass laws for the preservation of the public health. One of the tendencies of the near past in the development of modern medicine, is an increasing confidence in, and a reliance upon scientific medicine on the part of the public. That it will go on increasing is unquestioned, as medicine makes further advances and annexes the unknown to the known.

You may then ask why, with this exactness in research and the comprehension of disease on a physical basis, there has been a swing of the pendulum in the opposite direction and a sect has arisen which denies all this, and refers disease to a spiritual entity, a reversion to the demonology of the middle ages. Exactly the same comprehension that savages have of disease; a belief that led to the witchcraft of the middle ages. A belief that would refer disease to an evil demon called mortal mind, who is to be cast out by repeating a certain formula. We know that the followers of this sect would deny the truth of our assertion that their belief is the same as the demonology of the middle ages; but the briefest study of their views shows that the same old beliefs are masquerading under new names. The jargon, the methods vary, but the thought is the same. Turning the back and thinking away the disease may be more elegant and less noisy than the beating of tom-toms, but the idea of exorcism is the same. Do the christian scientists perform cures? Certainly they do (a gentleman with cork leg). How is it done? By suggestion, a well recognized method of treating diseased states and a method that is employed by physicians in suitable cases. In so far as their method happens to be applicable to a particular case the results are brilliant; when, however, they deal with an infectious case or organic disease, then the consequences may be deplorable. What then shall we do legally with the christian scientists? Nothing.

"Leave them alone and they'll come home Dragging their tales behind them."

We should ever remember that the con-

stitution guarantees to everyone life, liberty and the pursuit of foolishness. The right of everyone to make a fool of themselves if they want to cannot and ought not to be abridged. But when the views of the peculiar people endanger the lives and health of others then we must interfere. No one has a right to maintain a private epidemic, and the law can interfere to prevent this with the same justice that it could to prevent a man filling his fire extinguisher with kerosene. What is the remedy for Christian Science? Education! Not of the kind which deals with poetry, story and fiction, but which teaches the truths of exact science. We are told that this sect include among them, some of the leaders in the social and business world. This is true, but if we were to examine them, we would find them woefully deficient in knowledge of the simplest things; if we were to ask them how bread rises, how dew falls, how water boils, or how ice floats, we should not get a single scientific explanation of these simple phenomena. Personally, I have known a large number of Christian Scientists and I do not know one of them who could answer the four questions that I have propounded. Christians they may be, but—scientists.

I do not intend that this address shall be constructed into an attack upon a worthy, if misguided people, but I have taken this latest and most widely exploited example of superstition to show how the advance of a scientific material conception of disease, has been accompanied by a reaction to the mysticism of the middle ages. The one is the antithesis of the other and every sociological advance is marked by the same phenomena. What is here said of the Christian Scientists, applies with equal force to all the faith healing, magnetic physicians and miracle mongers, now so prevalent in this unhappy land. Much of this, is, of course, but an effort to obtain money under false pretenses, and as such, should be dealt with severely; but when practiced in good faith it must be left alone—medicine has nothing to fear from these fads.

The quack remaineth and abideth with

us always. The pretender and the charlatan has existed since the dawn of civilization and they will be with us as we enter the millennium. Where shall we draw the line between honest error and flaunting criminality? for the quack is a criminal and always seeks, not the good of the sick, but the lining of his own pockets. The distinction is not always easy, but the most that the law should attempt, is to prevent such from having the title of physician. If government is to say who shall practice this calling, then it must be assured beyond all question that the one on whom the right is conferred, shall possess the requisite knowledge. It is the legal stamp and it should mean something. A thousand times better, no examination and no legal restrictions, than that the license to practice be given to the unworthy or the ignorant. A poor medical practice act is worse than none, as a registered quack is double armed for evil. One of the tendencies of modern medicine is to closer restrictions upon those who enter the calling, and the tendency should be fostered by all laymen, in the interests of the public health and not with the idea that they are by this means fostering a medical trust. It is not the purpose of such laws to keep men out of the medical profession, but simply to see that those who enter are properly qualified. Fortunately, the body of medical knowledge is now so scientific and so exact that the distinction between the qualified and the unqualified was never so easy as at present, a tendency that will increase as time passes.

The increasing exactness in medical science is exerting a powerful influence upon medical education. By some, it is believed that the effect is reversed—that by the influence of medical education, the science is being created. The use of methods and instruments of precision, whenever they become at all general, must find their reflex in the medical curriculum. The medical college of my student days, was a very different institution from that of the present time. The college in which my pupilage began, had but one lecture room and not a single

laboratory. There was no entrance examination and all that was necessary to begin the study of medicine was the payment of a matriculation fee. The prescribed course was attendance upon two courses of lectures of twenty weeks each. Before my pupilage was completed, a chemical laboratory had been added and in a short time in organic chemistry was required. The institution had no hospital and only a few clinics could be attended in a neighboring charity hospital. In those times, the limitations of the institution did not strike us; in fact, medical education all over the country was in the same state and was not inadequate. There was very little that was worth teaching that could not be presented with such equipment. The advent of exact methods changed all this; laboratories became a necessity and the course was successively lengthened, until now, the requirements in the leading colleges, is four years of nine months each. Going with this, has been an elevation in the requirements for admission. Soon candidates for admission must have the B. A. degree. A comparison of such requirements would show that the standard is relatively higher in this country than it is abroad. Nearly the whole of what is now included in the Freshman and Sophomore years of American universities, is comprehended by the gymnasium course in Germany and this admits to any of the faculties of the university. Hence, it will be seen that the foreign student is able to begin his lifework a year earlier than if he took the A. B. and subsequently pursued his medical studies in this country.

The university course is not well arranged for those who purpose studying medicine, but it is well adapted to those who have their education terminated at the time they leave. A marked tendency at this time is toward a readjustment of general education in reference to the future career. Many literary colleges are now offering special courses for those who purpose studying medicine. As time passes, this recognition of the essential unity of instruction in the college and university, will lead to

important affiliations between the great universities and medical schools, and the old private organizations of medical men forming a medical school will give way to the university. There is every reason in favor of the student receiving his chemistry, biology, anatomy and physiology at the university, and much of this teaching can be done by those who are not medical men. Indeed, it is better for the student to approach these subjects apart from their practical application, as pure science.

Will there be a demand for education of this sort? Unquestionably. The laity are rapidly recognizing the importance of scientific precision. The physician who does not use these aids, soon finds himself outclassed. If he can make his years and experience tell, well and good; but the young man just entering upon his career, is looking for quality rather than speed in medical instruction. All this may be said without detracting from the instruction of earlier years, when young men read medicine with their preceptor and saw cases with him. For a frontier community, that was the only practical method.

What of the medical teachers? We are gradually drifting from the idea that a man should be connected with a school for what it will do for him. Replacing this, is a feeling that he should strive to see what he can do for the school. The best practitioner is not necessarily the best teacher. Medicine must, to a large degree, pass into the hands of trained instructors who make teaching a life work. Practical pedagogics must govern the medical curriculum of the near future.

The extensive plants and enormous capital required in a medical school, require endowment and it is a disgrace that so little has been done financially for higher medical education. It seems to me, that the profession are in a large measure responsible for this. They should explain to their patients who have money to bestow, the incalculable good which comes from endowments of this character. Theological schools, hospitals, and literary colleges have largely absorbed

the benevolent capital of the country; they are well in their way, but of what use are hospitals unless they are manned by the highest skill? Think of the danger which threatens at the present time; we are liable at any time to an outbreak of the plague. A suspicious epidemic has appeared in Butte, Montana; it is said to be a peculiar form of pneumonia of great fatality. The meagre descriptions that have reached us, show that it bears a striking resemblance to the pneumonic form of plague. In view of this contingency, there are almost no medical men in the United States who have had practical experience in its recognition and management. The value of endowed medical research in cases of this kind, is beyond calculation. It is a question that will force itself to the front in the near future.

The material rewards for the special skill in our profession have increased, as is witnessed by the salaries paid eminent surgeons in the South African war. We may doubt the wisdom of the hypertrophied salaries of \$25,000 a year, but they are a recognition of special skill, and, in a certain sense, reflect the judgment of the public as to the value of such medical services. That this recognition is a growing tendency, we firmly believe, and it is some consolation to those who are laboring in the rank and file, to know that the leaders, at least, are recognized. The outlook of the immediate future, for the beginner in medicine, is not bright. There are too many medical men, but this is true of all gainful occupations. There is, however, a constant adjustment, and the law of supply and demand must ultimately govern. As the standard of medical attainment is raised, and the cost of getting a medical education is increased, the supply will diminish. *The real problem before us, is the exclusion of those who are not properly equipped mentally for mastering the deeply intellectual problems of medicine.*

After we have secured the great college, with its magnificent equipment and specially trained assistants, how shall we run it? Certainly not by keeping it closed one-third of the time. The unit of instruction will

not be a year; the student if late a couple of months, must wait a whole year before he can enter. Instruction will be so arranged that he can begin at any time, and when he has completed the course he will be given his diploma. The old commencement day, with its platitudinous utterances, its faculty in dress suits and the graduates in Prince Alberts and silk hats, must be relegated to the past. It belongs to the young ladies' seminary and has no place in the school that fits one to grapple with sickness and disease.

The crowning glory of the present century, is the control of epidemic disease. We have mastered the problem of infection in typhoid, tuberculosis and malaria. If scientific medicine had nothing but these to its credit, it would take first rank among the beneficent sciences. Not only do we know what causes typhoid fever, but we know how to prevent it. We know the cause of consumption and it is probable that we shall never know how to prevent it, but the last year or two has seen some wonderful advances in our knowledge of how to treat the affection. The next great assault will be delivered against this terrible disease, which is said to destroy about one-seventh of those who die. It was once regarded as incurable; after the discovery of the bacillus, the profession groped for twenty years for something that would destroy the germ. Of course, it has not been found, but we have learned that we can put the patient in such a condition that he is able to overcome the infection, not in all cases of course, but in a large proportion, if only the diagnosis is made at an early date. What is needed is an out of door life—sunshine and fresh air. The value of special climate is exceedingly doubtful, but in most cases a cold dry air is best. Freedom from dust is the most important consideration. These conditions cannot be found in large towns or cities. Only a small proportion of consumptives can go any considerable distance, but they must be in the country. Here, we must have the aid of the country practitioner. For years he has seen many of his patients

going to the cities for operations and treatments, content with the thought that perhaps they received better service than he could give them. If tuberculosis is to be overcome, it must be with the aid of the rural practitioner. Fortunately, the equipment for this work is not extensive or costly. The open air treatment, with super-alimentation is the one that offers the most hope, and it is only practical in the country. If we are to greatly lessen the ravages of the great white plague, it must be with their aid. Think what a task is before us! It is believed that there are no less than 20,000 consumptives in Chicago alone.

I have not referred to vaccination and its benefits, as the discovery belongs to the last century, but there are still some persons who doubt the protective value of vaccination—of course, they are to be classed with those who believe that the world is flat. You may hurl statistics at them by the ream, and they will be of the same opinion still. The single fact, that during the Franco-German war, the deaths from smallpox among the German troops was 298, vaccination being compulsory. Among the French troops the deaths were upwards of 23,000, vaccination not being compulsory. A single experiment of such colossal proportions ought to overcome the logical perversion of even the most pronounced anti-vaccinationists.

I could go on multiplying statistics telling of the number of lives saved annually, and of the money value of decreased sickness. These have all been carefully calculated and ought to convince every layman that the endowment of medical science is a good investment from a monetary standpoint. From the humanitarian and Christian view, nothing nobler can be conceived by the human mind.

From a communication received from Dr. D. W. Graham, writes May 6th, we are pleased to announce that both he and Dr. T. W. Montgomery, his running mate, are having a glorius time of it in the old world. Dr. Graham regrets his absence from the Society meeting.

SELECTED TOPICS IN CONNECTION WITH THE PATHOLOGY OF DELIVERY.*

BY J. CLARENCE WEBSTER, M. D.

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The subject on which I have been asked to deliver the address introductory to our Obstetrical Symposium on this occasion is one of such enormous extent that it would be impossible, in the time allotted to me, to do justice to it even though it were considered only in a general way. I think it will be more profitable to select certain topics having a bearing on the papers to be read immediately, giving prominence to special features that appear to me of particular importance.

ANOMALIES OF THE HARD PASSAGE.

Under this heading are included all variations from the normal type of bony pelvis. The complications in labor associated with these conditions are among the most important in the whole field of obstetrics. In Europe much more attention is given to their consideration than in America, because it is generally believed that pelvic deformities are much more common there than here.

In the light of recent work it is doubtful if this widely held view is correct. In both continents it is very difficult to get accurate data regarding the frequency of their occurrence. This is due to the fact that there is an absence of a common understanding regarding the definition of deformity. Thus, both in Europe and America, many observers have neglected minor degrees of contraction, considering only those capable of causing serious troubles. Statistics vary also according to the expertness or fitness of different observers in recognizing deformities.

In this connection, the recent work of Williams and Dobbin of Johns Hopkins is worthy of the most careful study. Their observations are a direct challenge to those who hold the common belief regarding the

*Address of section two, delivered at Fiftieth Annual Meeting of the Illinois State Medical Society, Springfield, May 16, 1900.

infrequency of pelvic deformity in America. It is their view that deformities are considered rare only because they are not systematically looked for by the routine examination and measurement of all pregnant and parturient women.

In 1000 case of labor observed by them, there were 131 contracted pelvises, or 13.10 per cent. Of this number 46 or 35.11 per cent were of such a degree as to necessitate operative delivery.

It is interesting to compare these figures with those of Winckel, who states that 10 to 15 per cent of all child-bearing German women have contracted pelvises, but that only in 5 per cent is the contraction serious enough to be noticed.

The percentage of operative frequency in Europe is variously noted by different workers. Knapp put it at 61 per cent; Heinsius, 56.84 per cent; Ludwig and Savor, 45.6 per cent; Bosmann, 24.5 per cent; Franke, 20.5 per cent. In America the largest percentage is that of Flint of New York, viz., 46.

The well known statistics of Reynolds of Boston are not at all reliable with regard to the frequency of all degrees of pelvic deformity for of the 1127 cases studied by him, measurements were made practically only in those in whom operative delivery was carried out.

Williams and Dobbin have shown that such a method of inquiry can result only in the non-recognition of a considerable number of deformities. This was demonstrated by their careful study of negro women. They found that pelvic contractions were much more frequent among these than among white women. Yet on account of the small and easily moulded fetal head the degree of contraction is rarely sufficient to obstruct labour to a serious degree. Therefore, if only those cases were considered in which operative interference be necessary, a considerable number of deviations from the normal would be overlooked.

The most frequent contractions met with in practice are those following:

1. The Justo-minor or Universally contracted pelvis.
2. The Flat non-rickety, and rickety.
3. The Funnel-shaped pelvis.
4. The pelvis altered by various spinal deformities.

Of these perhaps the most common are the universally contracted and the flat.

Regarding the treatment of labour delayed in cases of these deformities, it is interesting to note a recent deviation from the methods most generally employed.

For many years, the aids to delivery, within certain limits of contraction, have been, in the case of the justo-minor pelvis, forceps, extraction; and in the case of the flat pelvis, extraction after version.

The *rationale* of these methods is as follows: In the mechanism of labor in a justo-minor pelvis, the head undergoes extreme flexion. The action of forceps is to promote the normal flexion, while version tends to produce an extension of the head. Consequently the latter manipulation is contra-indicated. In the mechanism of labor in a flat pelvis, extension and not flexion is a prominent feature and, consequently, extraction by turning is a logical mode of delivery. Moreover, it was long believed that the application of forceps to the fetal head, lying as it does in the case of the flat pelvis, with its long diameter in the transverse of the pelvic brim, grasping the face and occiput, must by compression produce a compensatory transverse bulging, which being in relation with the shortened conjugate of the brim, would only produce a greater obstacle to safe delivery.

Recently, Milne Murray, a distinguished obstetrician of the Edinburgh School, who has done an important service in perfecting the axis-traction forceps, has strongly urged the use of this instrument instead of version in the delivery of the head in flat pelvis.

In a series of experiments he has shown that the diminution of the head in the occipito-frontal diameter is accompanied by a compensatory bulging, *not in the transverse*, but in the vertical diameter, and that, therefore, a serious objection to the use of

the forceps is removed. By a simple and ingenious modification of the axis-traction forceps he has made it possible in these cases to make the line of traction coincide more accurately with the altered axis of the inlet than is possible with the ordinary axis-traction forceps. He and others have reported a number of cases in which his method has been successful in delivering a living child where marked contraction of the inlet existed. At the meeting of the British Medical Association in 1896, he mentioned one instance in which he had been successful where the brim conjugate measured 2.75 inches.

That this method of delivery in flat pelvis is a distinct advantage over version is the testimony of all who have adopted it. The risk to the mother is decidedly less and the chances of getting a living child are greatly increased. The necessity for performing craniotomy or symphysiotomy in such cases must also be considerably diminished.

RELATION OF DEFORMED Pelves TO THE POST-PARTUM STATE.

Some years ago it was my good fortune to be able to investigate the cadavers of a number of women who died at various periods in the puerperium of conditions not affecting the normal relationship of the pelvic contents. I was able by means of frozen sections to describe accurately, for the first time, the topography of the puerperal pelvis.

My sections showed that in the normal state, immediately after the Third Stage, the retracted and contracted uterine body fills the greater part of the pelvic cavity and compresses the extra-uterine tissues, this compression being especially marked between the uterus and the bony wall, and to a much less extent inferiorly owing to the softening and relaxation of the fascial and muscular tissues of the floor of the pelvis.

In consequence of this arrangement, the circulation of the blood in the extra-uterine pelvic structures is considerably interfered with, those parts inferior to the body of the uterus, viz., the cervix, vaginal walls, peri-

neum and sub-pubic tissues, being congested, while those tissues compressed between the pelvic wall and uterine body are anemic, many of the vessels being closed or nearly closed.

In the uterine body itself there is marked anemia owing to the compression of vessels by the retracted and contracted musculature. The condition of things lasts for the first four days of the puerperium. Both as a result of the state of the uterus and of the compression of extra-uterine tissues by the organ against the pelvic wall, bleeding from its inner surface is greatly interfered with, while a marked influence is exerted by the greatly altered circulation in the direction of initiating or assisting the retrogressive changes which cause uterine involution.

Further, the condition of the cervix and vagina helps us to understand why after labor there is so often bleeding as a result of tears, and why, if the laceration has extended into the para-cervical and paravaginal tissues so rich in venous sinuses, there may be very severe hemorrhage.

During several years I have made careful observations regarding post-partum hemorrhage in cases of normal and abnormal pelves and I have found it to be most profuse and most difficult to check in women with abnormally large pelves and in those with abnormally contracted pelves.

Of the former I may mention the just-major or universally enlarged, and the kyphotic in which the upper part of the pelvic cavity is much increased; of the latter I may mention the rickety pelvis.

The explanation of these facts is very evident from the study of cadavera. Barbour of Edinburg has published an interesting case of a kyphotic woman who died 1½ hours after delivery of post-partum hemorrhage, and his section of the frozen body show that the uterus in no way acts as a plug to the large size of the upper part of the pelvic cavity, the extra-uterine tissues being markedly congested, the large vessels dilated—conditions all favorable to excessive bleeding.

On the other hand in the case of a well-

marked contracted brim, as is shown by Stratz's section of a rickety woman who died of post-partum hemorrhage $\frac{1}{2}$ hour after delivery, the uterus cannot sink down into the pelvis. The cervix, vagina and extra-uterine pelvic tissues being thereby allowed to become enormously congested.

THE USE OF FORCEPS.

The remarks made by me in considering the subject of delayed labour in flat pelvis lead me to say a few words farther in regard to the use of forceps. It will be noted that I have referred only to the axis-traction instrument and not to the ordinary long forceps.

In such a connection mention of the latter would be entirely out of place. For them there is no such triumph as that which has been demonstrated for the axis-traction forceps. Successful delivery of a head lying above the brim of a flat pelvis with a true conjugate of 2.75 inches, must, indeed, be impossible with the ordinary long forceps unless the head be abnormally small.

It is in such a difficult obstetrical case that the overwhelming advantage of the axis-traction instrument is best demonstrated. Such a form as that advised by Milne Murray gives a maximum of advantage in traction and a minimum of waste of power and of danger to maternal and fetal tissues. It is impossible to conceive an instrument more nearly scientifically accurate.

When the long forceps is used traction is accompanied with dangerous compression of the fetal head, all the more serious because of the antero-posterior grip, and in the effort to deliver the fetus in the proper axis unnecessary force is expended and is lost in the shape of pressure against the maternal parts.

But it is not only in such a pelvic deformity as that which I have considered that the axis-traction forceps is the best instrument. I wish to urge its supremacy in every circumstances where instrumental delivery is indicated, not only in cases where the head lies above the brim but where it lies in the pelvic cavity.

In the later instance as in the former, the traction power is expended with the least loss of energy and there is a certain guide as to the manner in which it should be exercised. I know the ordinary criticism made by those who have used the long forceps, viz., that they have often been successful with it. Such a remark is on a par with that made by the man who says that he enjoys a ride on an old fashioned velocipede and doesn't understand why he should change to the latest improved bicycle. Nor will he understand until he has made a thorough comparison of both machines.

It is a striking fact that in Great Britain and France, the two countries in which the most important transformations in the evolution of the forceps have been made, that the latest development, the axis-traction principle, has found most acceptance.

In America, where in every department of life the greatest readiness is evinced in the adoption of improved mechanical devices, there has been exhibited the greatest tardiness in the employment of axis-traction forceps, in the practice of obstetrics.

Two years ago, while inspecting one of the leading maternity hospitals in the East, in which a large number of complicated cases are delivered, I was surprised to find that there was not a single instrument of this kind in the establishment.

I could name a number of similar institutions in Europe whence no other forceps is used.

The objection raised by many that the instrument is a complicated one and can only be satisfactorily used by skilled experts who have a large operative experience, is of no weight whatever. The mechanics of the forceps may be learned in a short time by any one who takes a little trouble, and this knowledge is essential to a proper understanding of the application of the instrument. In a well-conducted course of practical obstetrics every student in a medical school should, by practice on the manikin, be able to prepare himself for successful work in his after-professional career.

Indeed, as so many cases in which the axis-traction forceps may be of greatest use occur in places where the physician is not within reach of expert help, it is imperative that he should know how to employ the instrument just as he must be prepared to perform any important surgical operation, in case a serious emergency should arise.

THE WALCHER POSITION.

In 1889 Walcher pointed out that by placing a pregnant woman on her back on a table and allowing her legs to hang over the edge so that the feet do not touch the floor, the conjugate of the brim is increased about 1 cm. on the average. In non-pregnant women the increase is only about 0.5 cm.

The change is brought about by a tilting downwards of the ossa innominata by the weight of the legs, whereby the pubic symphysis is moved further away from the promontory.

In the most common forms of brim contraction, viz.: the justo-minor and flat pelvis, the small increase makes more easy the delivery if forceps are to be employed, and in some cases may make a safe passage possible, when without it embryulcia, symphysiotomy or Cæsarean section might be called for.

Moreover in normal pelvis, where the head is delayed at the brim owing to its abnormal ossification, its large size, or to an occipito-posterior position or face presentation, the Walcher posture may give extra space, sufficient to allow of a natural or assisted delivery. Then, in cases where the head is stuck above the brim in a breech case or after version, a similar advantage is gained.

Another important gain in connection with the delivery of the head at the pelvic outlet, is the relaxation of the perineal tissues. In all cases of labor this is of the greatest value in diminishing the risk of laceration. The positions which are most disadvantageous as regards the preservation of the perineum are the lithotomy and the lateral, the thighs being well flexed towards the abdomen.

In cases of small vulvar orifice, when the

forceps is applied to the head at the brim, there is, in either of these positions, a tendency to undue pressure backwards against the perineum. This is very much lessened by the Walcher posture.

INDICATIONS FOR THE USE OF AXIS TRACTION FORCEPS.

It would be unsatisfactory to mention in detail the many conditions in which the instrument should be employed. In general they may be referred to as follows:

1. In delayed labours due to:
 - A. Faults in the powers.
 1. Essential—The uterus.
 2. Accessory muscles.
 - B. Faults in the passenger.
 1. Slight enlargement or marked ossification of the fetal head.
 2. Certain malpositions and malpresentations.
 - C. Faults in the passages.
 1. Soft parts.
 2. Hard canal.
2. In dangerous labours due to:
 - A. Maternal complications e. g. Heart disease, pneumonia, etc.
 - B. Fetal complications e. g., Some cases of prolapsus funis, dry labors, etc.

In particular I desire to refer to certain conditions found in connection with the hard canal.

It is very evident that in the most common pelvis with contracted conjugate, viz.: the universally contracted and the flat, the use of axis traction forceps in Walcher's position makes it possible to deliver a living child below the limits hitherto believed to be within the range of safe accomplishment. Thus it has been widely held that, with a conjugata vera of less than $3\frac{1}{4}$ inches, successful forceps delivery may rarely be expected.

With the axis traction forceps and Walcher's position, there is much more chance of success where it measures 3 inches, or, in the case of a flat pelvis even $2\frac{3}{4}$ inches.

As a result of these improvements it is also clear that the range for the indication of premature delivery in such pelvis may

be considerably reduced. Thus many have been accustomed to carry out this procedure with a conjugate of $2\frac{3}{4}$ inches to $3\frac{1}{4}$ inches, degrees of contraction not incompatible with successful delivery with axis traction forceps in the Walcher position.

INDICATIONS FOR PERFORMING VERSION.

The chief indications for performing this method of delivery are as follows:

A. Maternal.

1. Accidental hemorrhage and placenta prævia.
2. Eclampsia and other conditions where a hurried delivery is considered necessary.
3. Flat pelvis.

B. Fetal.

1. Transverse presentations, when the conditions are favorable.
2. Prolapse of the cord in the first stage.
3. Brow and face cases when the head has not engaged, if it is impossible to change them into vertex cases.

With regard to operation in flat pelvis, it is evident, from what I have already said that success is to be expected in a wider range of cases where the axis traction forceps is employed, and that the latter method will probably displace the other entirely, or nearly so.

Comparing the relative merits of both methods in flat pelvis, it may be stated against version (1) that it introduces the risks connected with breech deliveries, e. g., asphyxiation of the fetus from pressure on the cord, extension upwards of head, upper extremities, injury to neck, etc.; (2) that it is impossible to bring down the child in the proper axis of the pelvis after version; (3) that turning becomes impossible or dangerous after the membranes have been for some time ruptured.

In favor of the forceps it may be said (1) that the fetus is not exposed to the risks connected with head-last delivery; (2) that the manipulative risks are not so great as in version; (3) *that forceps can be applied long after dilatation of the cervix and rupture of the bag of membranes*; (4) that the fetus may be withdrawn more nearly

in the pelvic axis; (5) that in the widened transverse diameter of the brim the blades of the forceps may usually be applied to the head without great difficulty; that the grip of the head, just sufficient to prevent slipping, does not dangerously compress the head; that the compression produced causes a compensatory vertical and not an antero-posterior bulging.

INDICATIONS FOR SYMPHYSIOTOMY.

This operation is best regarded as an adjunct to delivery by the axis-traction forceps. It may, therefore, be employed, speaking generally, where forceps delivery in the Walcher position is impossible, and where there is no doubt that the increased pelvic measurements resulting from the operation will allow the head to be extracted.

It may be tried:

1. In cases of pelvic contraction. Most authorities mention a limit of 2.6 to 3.2 inches in flat pelvis, and 3.2 to 3.9 inches in justo-minor pelvis. It is evident, however, that the employment of the axis traction forceps in the Walcher position must make unnecessary, in a considerable proportion of cases, the cutting operation.

It is also clear that symphysiotomy at full time must greatly diminish the necessity for inducing premature labor in cases of pelvic deformity. For a living child delivered at term by the axis traction forceps, with the aid of a symphysiotomy, is preferable to a premature delivery, with its risks and the uncertainty with regard to the rearing of a weakly child.

2. Symphysiotomy also has a place in impacted brow and face cases, where delivery cannot be safely carried out with axis traction forceps and the Walcher position.

3. In cases where the head is abnormally ossified or a little enlarged, and delivery cannot be effected by the axis-traction forceps, and the Walcher posture symphysiotomy is indicated.

THE INDICATIONS FOR CÆSARIAN SECTION.

This operation is to be employed mainly in cases of pelvic deformity, where delivery of a child by the methods already considered is impossible. It has also been held

by many that it should only be carried out where the child could not be extracted by means of an embryotomy. Nowadays, owing to the tendency to limit this procedure to cases in which the child is dead (or in which hydrocephalus or some other marked pathological condition exists), the sphere for the employment of the Cæsarian section tends to be enlarged. It should be employed in all cases of pelvic deformity producing contraction of the brim, so that the available or obstetrical conjugate of the brim is $2\frac{1}{2}$ inches or less, in the case of a living child. When the child is dead, craniotomy may be performed with a conjugate of $2\frac{1}{4}$ inches.

Section may also be performed in cases where there is marked contraction of the outlet, and in cases where certain tumors of the soft parts or bone, or cicatrization of the vagina greatly diminish the parturient canal.

The operation may also be carried out immediately after the death of a woman in advanced pregnancy, where there is believed to be a healthy living child in utero.

The Porro-Cæsarian section should be employed where the patient is particularly anxious not to run the risk of a second pregnancy owing to the impossibility of delivery through the vagina; (2) where the uterus or appendages are so diseased as to render probable the necessity for a subsequent operation; (3) where, owing to a prolonged labor, in which manipulations have been tried, infection of the uterus has occurred.

INDICATIONS FOR EMBRYOTOMY.

At the present time the tendency is to limit the destruction of the fetus to those cases in which it is dead and cannot be delivered by forceps, turning or symphysiotomy. In cases of the living child, to those cases in which some marked fetal abnormality exists as a large hydrocephalic head, tumors, monstrosity, etc.

In cases, however, where a physician is so placed as not to be able to have the Cæsarian operation safely carried out, it may be necessary to advise the mother to submit to embryotomy.

In view of the modern improvement in the technique of abdominal surgery, whereby the mortality of Cæsarian section has been greatly reduced, a physician takes upon himself a grave responsibility in recommending the destruction of the living child.

THE APPLICATION OF FORCEPS.*

BY J. E. ALLABEN, M. D., ROCKFORD.

The agents or forces that are responsible for the origin and evolution of the obstetrical forceps may be placed under two general heads:

1. The evolution of the human family to its present stage in civilization.
2. Individual deviation in structure or function, either in the parent or fetus, from a certain type we designate as normal.

Corroborative of the first proposition we have only to point out the fact that the lower we go in the scale of animal life the easier and more simple are the processes of procreation. The ameba reproduces itself by a simple division of its nucleus and protoplasmic mass. In some animals as the tape worms, the sexes are combined in one individual and procreation is effected by ova. Higher in the scale the sexes are differentiated, yet procreation is effected on the maternal side by means of ova which are impregnated outside of the body, as illustrated in the fish, the male visiting the spawning ground and impregnating the eggs. In the frog species the male fastens himself to the female's back in a tonic spasm and impregnates the spawn as it leaves her body.

But in these processes of procreation there is nothing that approaches the almost tragical processes of that function we call labor in the human species. When we ascend to the class Aves, or birds, however, we have the first suggestion of it. Here the ovum or egg has been impregnated within the maternal body, it is protected by an outer coating of unyielding substance, and has attained a size apparently out of pro-

*Read at the Fiftieth Annual Meeting of the Illinois State Medical Society, Springfield, May 16, 1900.

portion to the size of the canal it must traverse in reaching the outside world. But even with these features, conflicting to some degree with easy delivery of the egg, there are two features that stand out, plainly in contrast when compared with labor in a higher class of animals, the Mammalia for example. These features are:

1. Absence of interference from bony structures.

2. The architectural features of the egg tend to facilitate to the highest degree its delivery by mechanical, i. e. muscular force—a feature entirely absent in the higher Mammalia.

In the egg's shape is represented one of the potent forms of mechanical force, viz.: the wedge. An egg is a cone-shaped wedge.

Place this cone-shaped wedge in an elastic canal with a moderate continuous force behind it and that canal will dilate to a point equal to the greatest diameter of the wedge, and gradually will traverse the canal its entire length.

In oviparous animals there is no part of the bony skeleton that interferes with parturition. Mammalia, however, in which class man is included, are viviparous with one or possibly two exceptions, and that portion of the bony skeleton known as the pelvis forms an obstructive element in parturition. The newly created mass that must pass through this bony ring has also a bony skeleton of very irregular outline, alterable only to a limited extent.

But in the lower order of animals complicated parturition is rarely observed and in the lower races of the human family we may say that it is comparatively rare while among the most civilized races dystocia is of such common occurrence that the time of parturition is regarded with the greatest concern.

On the maternal side one of the causes for this is due to the fact that the skeleton of man is maintained in an upright position upon two extremities. To maintain this position the bones of the pelvis must be, comparatively speaking, larger and more compactly bound together than in the lower animals.

On the fetal side it is apparent that in the evolution of the race the tendency has been toward a gradual increase in the size of the encephalic extremity of the cerebro-spinal system—the head—and the gradual moulding of the head to approach more and more the form of a sphere.

Coincident with these changes we observe that the condyles by means of which the head is joined to the spinal column are advanced farther and farther toward the middle of the skull, as we ascend the scale of animal life, till in man they are placed near the center, a position that would balance by the easiest method a spherical object upon a perpendicular line.

Lusk says: "The insertion of the spinal column at a point nearer the occipital than the frontal extremity of the child's head is of supreme importance in the furtherance of the mechanic processes of labor. It converts the head into a lever consisting of two unequal portions. When the head therefore encounters circular resistance in passing through the obstetric canal, pressure transmitted through the spinal column causes the descent of the occipital short end of the lever, while the pressure on the forehead from the side walls flexes the chin upon the thorax, the degree of flexion depends upon the size of the canal through which the transit is made."

By accurate measurement upon an adult skull I found that the distance from the center of the condyles to a perpendicular line touching the frontal eminence was 4.18 inches; from the center of the condyles to a perpendicular line touching the occipital protuberance was 2.56; a difference of 1.58 inches. We see, therefore, that the condyles are about an inch and a half nearer the occipital than the frontal extremity of the head. The lever theory, however, as above referred to, is not consistent with what actually takes place in the descent of the child's head through the parturient canal. The head may be compared to a lever of the third class, i. e. a lever with the power between the weight and fulcrum, but the fulcrum shifts during labor from one end of the lever to the other, accord-

ing as the forehead or occiput encounters the bony canal. For instance, when the forehead meets resistance the occipital short end of the lever descends, but when the occiput is held at the symphysis pubis the frontal long end of the lever descends and sweeps over the perineum or *vice versa*.

It would therefore, seem to me that this inch and a half departure of the condyles from the center of the skull is of little importance in the mechanism of labor in the human family.

The short arm or the long arm of the lever advances alternately along the parturient canal in the line of least resistance. The same results would probably occur with equal facility were the condyles exactly in the center.

Man through his intellectual development has lost some physical qualities which render procreation more difficult; he has more of the reasoning faculties and less of instinct. But that which he loses from nature he continually supplies by art.

It is characteristic of nearly all of the orders of the class Mammalia that their bodies are protected by hair; art has supplied this defect in man by furnishing him clothing. In man with a highly organized nervous system there comes also as a natural consequence, a greater susceptibility to pain, but art supplies a remedy. The processes of evolution have rendered parturition in the human family more dangerous to both mother and child as a consequence of which obstetrics as an art has been developed and the forceps has been evolved.

The obstetrical forceps is a two-edged sword. In the hands of the skilled it is a device capable of saving life and curtailing pain. In the hands of the unskilled it has done great harm.

A professional friend told me that he was called to a case where an unsuccessful attempt had been made to deliver a woman by forceps, but in the attempt the peritoneal cavity had been invaded and coils of intestines were found protruding into the vagina.

Of the making of forceps, like the making of books, there is no end. There are

a number of makes that are good. The essential features in a forceps are that they should be aseptible, they should have the proper cephalic and pelvic curve, they should be rigid enough to prevent slipping and yet not cumbersome, and they should be so constructed that traction can be applied as near as possible in the direction of the axes of the pelvic planes.

We recognize three varieties, viz.:

1. Long.
2. Short.
3. Axis-traction.

The first variety is well represented by the Elliott forceps, Fig. I. Jenks or Hales short forceps are good representations of the second variety, Fig. II. The best known axis-traction forceps is Tarnier's an improved pattern of which is represented in Fig. III.

The expense of the Tarnier forceps has prevented its adoption by the general practitioner. An inexpensive and practical substitute for this forceps is the device known as Reynold's Axis-Traction Rods. These rods may be attached in the lower angle of the fenestra of an ordinary long forceps as shown in Fig. IV.

Doctor J. Clarence Webster, who has just delivered the opening address of this symposium, has been kind enough to allow me to inspect the new axis-traction forceps of which he speaks, and explain to me the advantages of the mechanical principles upon which it is constructed. This instrument, known as the Milne Murray forceps, has been evolved by its author from the original long Simpson and Tarnier forceps, the curve of which has been modified to correspond as nearly as possible to that of the pelvis. The fenestra are moderate in length and the traction rods are attached as near to their lower angles as possible so that traction when applied will be in line with the axes of the pelvic planes.

The traction bars extend along under the forceps handles for some distance, nearly parallel with them and then instead of dropping downward to a handle in a gentle curve, as in the Tarnier forceps, the bars drop abruptly at right angle to the shank



FIGURE I.

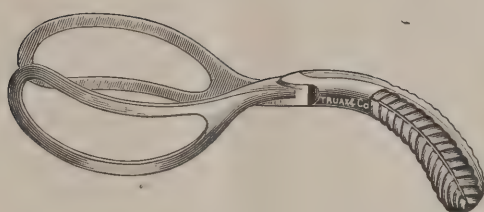


FIGURE II.

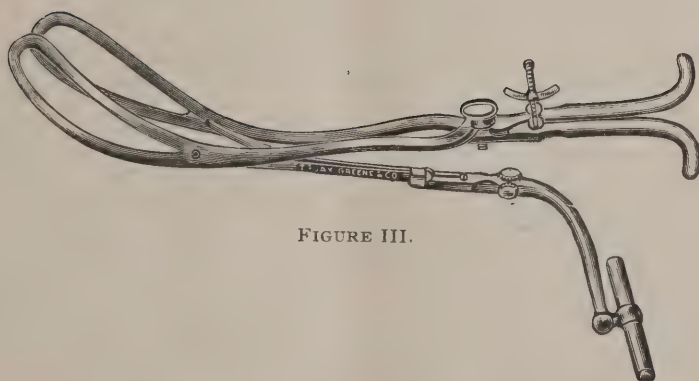


FIGURE III.

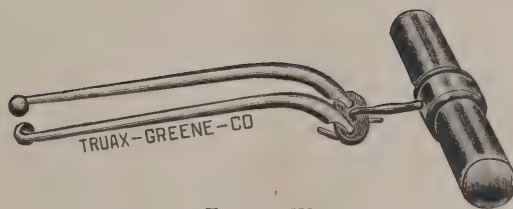


FIGURE IV.

of the forceps and upon this perpendicular bar is a handle so adjusted that it may be shifted to any desired point. By this contrivance the line of traction may be altered to suit different forms of pelvises.

When traction is made with axis forceps and the head advances, the handles gradually describe a curve in an upward direction. The proper direction of the line of traction is represented by a Tangent of the pelvic curve. As this curve is constantly changing it is claimed by Doctor Murray and the advocates of his forceps, that the direction of the traction force should change correspondingly.

The handle of the forceps may be considered an index to the change constantly going on and if the traction bars are maintained in a position parallel with the handle bars of the forceps the traction force will always be in the right direction.

It is claimed that this parallelism can only be maintained with an instrument constructed with the perpendicular bar and shifting handle like that of the Milne Murray forceps.

Regarding the merits of the axis-traction forceps there can be no question; yet, outside of the large cities or lying-in institutions, they are seldom used. In the next few years this condition of things will be changed. In the opinion of competent observers the axis-traction forceps is destined to almost entirely displace the ordinary forceps.

There are some general rules that should be strictly observed in all cases of forceps delivery. These observations refer particularly to private and not to hospital practice.

The forceps should be rendered clean by boiling. The patient be thoroughly anesthetized with chloroform. There are but few obstetrical cases where chloroform is contra-indicated; it assists in delivery and it is barbarous to deny the patient the relief it affords. If the bed is used instead of a table the patient should be laid cross-wise with the buttocks close to the edge and raised by folded blankets or comforters so they will not sink beneath the side-board.

A half dozen thicknesses of newspaper over which is placed a newly laundried sheet four double will serve for an oil cloth or Kelly pad if placed under the pelvis and conducted to a slop jar on the floor. In ordinary cases the limbs are placed in the lithotomy position each one being entrusted to an assistant. If help is scarce one assistant can control the limbs if a sheet is rolled up diagonally, the central portion placed under the neck and the ends tied loosely about the thigh above the knees with the limbs in the lithotomy position. The urine is drawn and the rectum emptied; the external genitals and adjacent surfaces of the thighs are washed with soap and water. A vaginal douche is given either of carbolic acid, one or two per cent; bichlorid 1:4000 or lysol 1:100. Lysol is preferable as it does not injure the instruments and is a lubricant as well as an antiseptic. I know that many will say this method of preparation involves unnecessary precaution and exposure, but it should be borne in mind that delivery with forceps is a surgical procedure and should be conducted with the same degree of care as any other surgical operation, and I do not believe it is possible to do a clean forceps delivery under the bed clothes with the patient in the ordinary position. Our hands having been cleaned with soap and water and an antiseptic solution, we are ready to apply the forceps. This seems like a simple thing and an explanation about the right and left blade, and right and left side seems unnecessary. Sit down in a chair ready to apply the forceps; take up the forceps, put them together and hold the points at the vulva in the position they will be when upon the child's head. The blades cross at the lock; now take the lower blade and you have the one that should be first inserted.

To insert the blades there are two things to be remembered:

1. The curve of the child's head.
2. The curve of the mother's pelvis.

Adapt the blades of the forceps to these two curves and the handles will take care of themselves. When the lower blade is in place the shank rests upon the perineum

and there is but one place where the second can be inserted, that is, opposite the first, and when inserted it drops down upon the under blade ready for locking.

It is impossible in this paper to mention all of the indications for the use of forceps embraced under the second general head. "Individual deviation in structure or function either in the parent or fetus from a certain type we designate as normal."

In many cases the indications are such as to admit of no doubt; in other cases it is simply a question of individual judgment. In general we may say that in all cases of feeble action of the uterus and accessory muscles due to exhaustion, and where there is no obstruction either in the soft or bony tissues to the advancement of the head, forceps are indicated. They are indicated also in cases where rapid delivery is necessary in the interest of the mother, as in heart disease, pneumonia, convulsions and hemorrhage, or in the interest of the child, as weakness of the heart from protracted labor, prolapse of the cord, etc. Forceps should not be applied until the cervix is dilated or dilatable, and the membranes ruptured; they should not be applied through a cancerous cervix nor to a hydrocephalic head or a decomposed fetus, nor in any case where the fetal head and pelvic canal are so disproportionate that a living child cannot be born. In no case should the head be dragged through the parturient canal by brute force. The forceps is a traction instrument, pure and simple, and an up and down or pendulum motion is never permissible. Even the traction force must be applied with sense and moderation.

It must be remembered that the object in view is not only to deliver the child, but to deliver it alive and without inflicting harm upon the mother. If in any case undue force is required it is a sign that forceps are contra-indicated and to persist in so doing is a procedure compared with which symphysiotomy and Cæsarean section are conservative operations.

In introducing forceps several fingers of the unengaged hand should be introduced into the vagina and direct the blades so that

the fetal or maternal tissues are not injured; especially must this rule be observed in high forceps where the blades enter the lower segment of the uterus, and at no time should force be used either in introducing or locking the instruments. If force is required to accomplish these objects it is an indication that the application is faulty or the case is one where forceps should not be used.

The operations of forceps applications are divided into:

1. Low.
2. Medium.
3. High.

Under low forceps we recognize the following divisions with reference to position and presentation.

1. Occipito-Anterior.
2. Occipito-Posterior with partial rotation.
3. Occipito-Posterior.
4. Face Presentation.
5. Breech Presentation.

Low forceps with occiput anterior is a simple procedure. When adjusted the forceps embrace the head in the biparietal diameter. Here forceps are indicated when from any cause the head ceases to advance along the floor of the pelvis.

When the head is left in this position for some time the danger of permanently impairing the tone of the tissues of the pelvic floor is much greater than possibly can be incurred by proper application of forceps. Traction should be intermittent so that the perineum can gradually relax and at each intermission the pressure upon the head should be released by loosening the forceps at the lock.

These rules should be observed in all forceps applications.

When the occiput has been brought down well under the pubic arch the forceps should be carefully removed.

To conclude the delivery of the head I have found the following method advantageous: With the right hand grasp the bulging perineum between the coccyx and anus palm upwards, the ball of the hand resting upon the perineum between the

anus and vulva. In this position an outward and upward impetus can be given the head and the palm of the hand can very accurately measure and control the stretch of the perineum. Now press the first two fingers of the left hand down behind the occiput and against the pubic arch which will form a fulcrum for the fingers, the tips of which by acting upon the occiput in unison with the other hand gradually forces the face out over the perineum, or if the patient is high enough, as upon a table, the position of the lower hand may be reversed (palm downward) and the thumb and fingers form a crutch grasping the perineum, the advance of the head being thereon controlled by the thumb of the upper hand. If the elbow can be supported upon the knee the power of the lower hand can be materially increased. This is a safer and more elegant way than hooking the chin out with a finger in the rectum.

The form of forceps used in this operation is immaterial. The short forceps is usually employed. Doctor Webster, as you observe, recommends the axis-traction forceps in all cases regardless of the position or location of the head.

Occiput-Posterior with partial rotation.—Firm uterine contraction and a pelvic floor of good tone are the requisites for anterior rotation. If either of these conditions is lacking rotation may be incomplete and the head will then occupy an oblique position in the pelvis.

If the uterus is at fault and the patient not already exhausted by her efforts, 8 or 10 grains of quinine may be given. With this treatment the uterus after resting an hour or two will sometimes contract firmly and terminate labor without forceps. If this does not occur forceps should be applied in the oblique diameter opposite to that occupied by the head if possible; if it is not possible to do this they should be applied directly to the sides of the pelvis without regard to the position of the head.

Rotation should not be attempted with forceps, but the forceps should occasionally be unlocked or readjusted so as not to

interfere with rotation. With care and patience a living child may usually be delivered, yet the operation is primarily in the interests of the mother.

Occiput-Posterior.—With the occiput in this position forceps should be withheld till Nature has been afforded reasonable time to rotate the occiput anteriorly. Should this not occur forceps should be applied to the sides of the head and traction made in a downward direction with a view of bringing the forehead under the pubic arch. When this is accomplished the forceps should be removed and if Nature does not rotate the occiput forward delivery must be accomplished with forceps. Should it appear impossible to deliver the child alive or if delivery implies severe injury to the maternal soft parts, symphysiotomy should supplement forceps. I realize that this suggestion seems radical to some. We have, however, reached that stage of obstetric surgery where we are warranted in claiming that mutilating operations upon the living child are unjustifiable. But I would ask, what is the difference between killing a child with forceps and doing mutilating operation, so far as the child's interests are concerned?

Face Presentation.—In face presentation if the chin has rotated forward forceps should be applied to the sides of the head, and by traction horizontally the chin may be brought well under the pelvic arch, when by elevating the forceps, the top and back of the head slide out over the perineum. If the head is wedged in the lower pelvis and the chin turned backward symphysiotomy is indicated in case of a living child; in case of a dead child craniotomy should be performed.

Breech Presentation.—In breech presentation forceps may be applied over the sacrum and posterior surface of the thighs if rotation has occurred; if the hips are transverse manual rotation should be attempted; if this cannot be accomplished the forceps should be applied to the lateral aspect of the thighs. In any case great care should be exercised not to employ sufficient pressure to injure the child. In breech pre-

sentations the management of the after-coming head is sometimes the most difficult and to the child the most dangerous part of delivery. It has been claimed that the manual manipulation known as the Veit-Smellie method largely does away with application of forceps to the after coming head. If, however, the head becomes extended and the chin caught behind the symphysis, forceps should be applied at once either anteriorly or posteriorly as deemed best.

Medium Forceps.—The term medium forceps is used by some authorities for the operation of applying forceps to the head when a portion of it at least has descended below the superior plane. But, inasmuch as high forceps are not generally used until the head is engaged in the superior straight, and inasmuch as the conduct of labor is very similar in the two classes of cases, I will consider the two operations under the head of high forceps.

High Forceps.—In high forceps applications the greatest patience care and skill are required to conclude the operation successfully.

This procedure is indicated in cases of hemorrhage as in placenta previa, eclampsia, contracted pelvis and failure of the expulsive forces. If the head is not fixed at the brim, version should be the operation of choice. A careful examination of the head and maternal soft and hard parts should be made to determine, if possible, the cause of delayed labor. For this examination the patient should be well under chloroform, and if necessary the hand should be introduced into the vagina. The flattened and generally contracted pelvis are deformities most frequently met with in the bony canal. To discover these deformities pelvimetry should be employed. Where it is possible this should have been done previous to labor.

For measuring the external diameters of the pelvis the ordinary mechanic's callipers with curved arm ten or twelve inches long, and a carpenter's pocket rule will answer every purpose. In these measurements the external conjugate is of the most import-

ance. In average normal cases this is eight inches.

More accurate knowledge can be obtained, however, by estimating the diameters of the internal pelvis for which purpose the fingers and hand are used. If the promontory cannot be reached with the second finger, or if the estimated diameter at the brim is $4\frac{1}{4}$ to $4\frac{1}{2}$ inches, the conjugate diameter is normal. It has generally been conceded that if the true conjugate diameter was less than $3\frac{3}{4}$ inches, with a fetal head of average size, forceps delivery should not be undertaken. With the introduction of the axis-traction instruments the field for forceps has been considerably enlarged.

Doctor Wm. L. Richardson, of Boston, says: "Doctor Longaker does not believe that a contraction of the pelvis itself is a sufficient reason for the performance of version, inasmuch as the axis-traction forceps will be found sufficient for the extraction of the head through a flat pelvis with a conjugate of three inches or even a trifle less, and through a conjugate of a generally contracted pelvis of at least three and a half inches. In flat pelvis with a conjugate of not more than three and a fourth inches, and not less than two and three-fourths inches, premature labor should be induced."

Doctor Webster suggests in these cases a wider range for forceps than this, in generally contracted pelvis three inches, and in flat $2\frac{3}{4}$ inches, provided axis-traction forceps are used and the patient placed in the Walcher position, which increases the conjugate diameter $1/8$ of an inch.

To obtain this position the patient is placed with the pelvis near the edge of a table, the legs hanging down, but the feet not touching the floor. Forceps delivery has been accomplished in this position with a conjugate of 2.75 inches.

With high forceps the blades should be applied to the sides of the pelvis without regard to the position of the head.

As the head is grasped obliquely there is more danger of compression, so the rule

*Annual of the Universal Medical Sciences, 1888; vol. IV., p. 217.

of frequently unlocking the instruments should especially be observed. When the head has been brought down to the floor of the pelvis, if rotation has not already taken place, and if there are no indications for immediate delivery, the forceps may be removed and an opportunity afforded the head to rotate. If this does not occur in a short time, however, the delivery must be completed with forceps.

TECHNIQUE OF VERSION.*

BY J. F. PERCY, M. D., GALESBURG.

Version, in its obstetrical relation, is the act of turning the child in utero. Attempting this manœuvre presupposes an undesirable position for the safe delivery of the child and of the mother as well. As a preliminary to the discussion of the proper performance of version, it may be stated that the period of election for the successful performance of this act depends upon many fortuitous circumstances, and that this period once passed, favorable conditions cannot well be recalled. An important preliminary aid to the final success of version will be found to lie in an exact diagnosis of the relation of the fœtus in utero to the maternal parts. This will require either abdominal palpation, a vaginal examination or both combined. This examination to be complete presupposes that the measurements of the pelvis have been determined by the pelvimeter. Version should never be attempted in a pelvis where the conjugate vera is less than nine cubic centimeters (3.6 inches). As a means of determining this, internal measurements of the pelvis by the methods usually recommended have never in my hands proved to be accurate enough for safe work. The rule to subtract nine and one-fourth centimeters (3.7 inches) from the external diameter of Baudelocque has been more accurate and practical. Another very practical aid is to examine the prospective mother by abdominal palpation every two weeks

after she has advanced beyond the seventh month of pregnancy. This gives the practitioner, if I may be allowed the expression, "a birds'-eye-view" of the concluding weeks of pregnancy. At these examinations the position of the fœtus is not only learned, but the possibility of making its head engage at the pelvic brim is determined. Version best fulfills the indications for its performance in cases requiring haste in delivery, as eclampsia, placenta previa, premature separation of placenta, threatened death of fœtus, and in cases where the life of the mother is jeopardized. Version again will do good service in many cases of transverse presentations, especially with prolapse of an arm, in persistent prolapse of the cord, in compound presentations, i. e. arm and head, cord and arm, feet and arm, etc. In cases where the head will not engage at the brim after hours of pain, version may serve a most useful purpose, as also in the cases where the chin is posterior, and in certain deformities, especially the justo-minor and the flat pelvis. There are three varieties of version: Cephalic, where the head is brought to the brim; pelvic, where the breech is brought to the brim; and podalic, in which the feet are brought to the brim. The methods by which these positions are encouraged and maintained are known as the external, internal and combined. The latter also bears the name of Braxton Hicks. In performing version the patient should be placed on a bed or table that will raise her about thirty inches from the floor. This obviates the necessity for working in a constrained position. The ordinary wearing apparel should be removed and the abdomen, together with the pelvic outlet, buttocks and knees covered with some material (preferably gauze) that will not fail to give perfect freedom to the manipulative movements that may be applied to the abdominal wall. Version belongs to the domain of surgery. The preparation of the physician therefore should be as for a capital operation. In making ready the patient the following procedures have given excellent results: An empty bladder and colon.

*Read at the Fiftieth Annual Meeting of the Illinois State Medical Society, Springfield, May 16, 1900.

The buttocks well elevated and drawn to the edge of the bed with the knees either flexed on the abdomen and maintained there by the aid of human or mechanical assistance, or permitted to hang over the edge of the table as practiced by Walcher. The pubic hair if not removed by shaving should at least be closely clipped. The patient must now be anesthetized in order not only to make effective the next step of the preparation (scrubbing), but also to more effectively perform the act of version. Every part of the body which is to be involved in this manual process should be thoroughly scrubbed with green soap, aided by a generous gauze sponge. At least ten minutes should be given to this both within and without the vagina. Particular attention is to be paid to the removal of the smegma which collects about the glans clitoridis. If necessary the adhesions often existing between this organ and the labia minora should be broken up in order to remove this bacterial laden material. After the parts have been thoroughly scrubbed and douched with sterilized water to remove what remains of the soap, alcohol is next to be poured over the field. The alcohol should be made to bathe every part of the tissues on which the soap and gauze has previously been used. Further douching with solutions of mercuric bichloride is, I think, unnecessary. After delivery is accomplished a final (vaginal) douche of creolin may serve a useful purpose.

As to the position of the physician in relation to the patient when about to perform version, no hard and fast rules can be laid down. Indeed, attempts made to remember rules rather than principles may lead, as has been tritely stated, to many disastrous results in this as well as in other branches of medicine. It may not be amiss however to mention that most of the authorities state that when the back of the foetus is to the left of the mother that the left hand should be used and vice versa. Rupture of the bag of waters co-incident with the first onset of labor frequently means an abnormal presentation, and an

abnormal presentation a deformed pelvis, as was long ago pointed out by Pinard. If a transverse presentation is found before rupture of the sac and dilatation of os an attempt may be made to correct the position by external manipulation. In attempting these movements the hands should be laid flat on the abdomen and made to seek each extremity of the foetal ovoid. When discovered the breech and anterior surface of the child should be pushed away from the pelvis, while with the other hand the head should be pushed into the pelvis. Attempts to change the position of the foetus in utero are sometimes made easier if the position of the mother is also changed. This change should encourage the displacement of the breech of the child in such a way as to cause its head to gravitate into the false pelvis. When this has been brought about the head must be retained there (preferably by the hands) until through expulsive pains it has entered the superior straight. If the cervix is dilating and dilatable it is good practice to rupture the amniotic sac in order to retain this favorable position of the foetus by having it the more closely grasped by the uterus. Under favorable conditions this form of version is not a very difficult manoeuvre, but unfortunately the number of cases in which it can be made a practical aid are very infrequent. Under conditions not so favorable: To enumerate, where the greater part of the amniotic fluid has drained away, or prolapse of an arm or the cord has occurred, or where the shoulder is found to have entered well into the pelvis—other means than version may have to be employed. If some of the fluid remains after rupture of the sac it is good practice to plug the vagina or cervix with a Barnes or Champetier de Ribes bag distended with warm sterilized water. Version is then attempted by external manipulation as in cases where the sac has not ruptured. If external version cannot be made to succeed and the bag of waters has not ruptured and the cervix can be dilated sufficiently to admit one or two fingers into

the uterus, the combined method of Braxton Hicks may be attempted. The presenting part by this method is crowded from the outside upon the fingers in the uterus and by them manipulated with the aid of the external hand into the position desired. This method requires for its successful performance an unruptured amniotic sac (although this is not paramount to success) and an uterus not over irritable together with a sufficient degree of foetal mobility. Its chief advantage is the fact of its availability early in labor and entire freedom from danger to the structures involved in its performance. Unfortunately however this method will not always succeed in delivering the woman of her child. There remains then for our consideration internal or podalic version of which Figg, of London, so long ago as in 1858, claimed should be universally made the method of determining every case of labor. This method requires sufficient dilatation of the cervix to admit of the introduction of the hand into the uterus. This may be brought about by the gradual introduction of an increasing number of fingers until the whole hand can be entered. Additional dilatation may be obtained by closing the hand within the uterus and gently withdrawing it. The Barnes bags distended with sterilized water also make most efficient dilators. When dilation has reached a point sufficient for the introduction of the whole hand into the uterus, cephalic version is no longer to be thought of. With the hand in the uterus the obstetrician is to grasp one or both of the feet. With a foot or the knee within ones grasp traction can in most cases be easily exerted and a foot delivered. The delivery will undoubtedly be easier if the anterior leg or thigh of the child is the part on which traction is exerted. It can readily be seen that should traction only on the posterior leg be made that the anterior surface of the child presenting at the symphysis will press with a force greater than would be possible from traction made only on the anterior leg. Extraction by traction requires great care should never be attempted without the aid to be derived from

the free hand manipulating and pressing the uterus downward from above. In the greater majority of instances attempts at version will succeed best when made in the interval between the pains. If the case is one of a transverse presentation complicated with a prolapsed arm the latter usually causes no new difficulty if let alone. The text books offer the advice to retain control of such a member by putting a tape around it at the wrist. This (when a successful version returns the arm temporarily to the uterine cavity) can be made to act as a tractor to prevent the upward drift of the arm over the head in the downward progress of the child. In persistent prolapse of the cord if position and the fillet in turn have failed to aid in retaining it within the uterus, podalic version is not only a legitimate procedure, but it promises much in the way of a safe delivery.

The two remaining conditions in which version is often useful are placenta prævia and in true uterine inertia. In either condition temporizing methods is bad treatment. The indications are imperative and demand that the uterus be emptied at once. If the cervix cannot be rapidly dilated by the hand of the obstetrician, deep incisions through it, as advocated by Dührssen, should be made. The incisions should extend through the vaginal portion of the cervix to the lower uterine zone. When this has been done the hand should be introduced and an extremity brought into the vagina. This treatment has greatly reduced the mortality both to the mother and the child if the latter was viable at the time delivery commenced. When cephalic version has brought the head successfully into the cervix there is little remaining for the obstetrician beyond the ordinary conduct of labor. If the case is one of podalic version, after bringing the feet into the vagina the case may be left to nature. If haste, which is usually the imperative rule in version, is necessary traction may be exerted on the delivered member.

After delivery of the feet and breech careful attention should be given to the cord. If it pulsates but feebly the case

cannot long be left to the unaided efforts of the woman.

If immediate delivery is deemed a hazardous procedure for the mother and pressure is interfering with the circulation in the cord, it must be lessened. This can sometimes be successfully accomplished by following up the cord with a pair of placental or other large forceps and opening them sufficiently at the pressure point. If the blades are wrapped with gauze greater space for the cord can be obtained and the possibility of damage to the tissues avoided. In podalic version delivery of the after coming head may present many difficulties. It is assumed that the arms have been prevented from slipping over the head and nothing now remains but the delivery of the latter. It should be understood here as if in parenthesis that in making prominent the possible difficulties to be met with in version, that I do not wish to magnify this part of the subject to the degree of the subject itself. If the necessity for version is recognized by the careful practitioner at a time when it can best be performed, it offers more in the way of good results with less danger to the mother and her child than any other major obstetrical procedure. With the head remaining undelivered it is important to wrap the body of the child with some covering that will prevent chilling of the skin. Not to do this will invite respiratory efforts which will endanger its life. To deliver the child's head many methods are advocated. The more prominent bear the names of Prague, Deventers, Wigand-Martin and Smellie-Veit. The one which so long has borne the name of Prague, where it originated, suffices in the majority of cases. To make use of it the partially delivered child is grasped by the feet with one hand while two fingers of the other are hooked over the shoulders from the back and close to the neck. Traction should first be made upon the child downward over the perineum of the mother until the head has slipped fully into the pelvis. With this accomplished the feet are rapidly raised toward the abdomen of the mother using the fingers over the shoulders

as a fulcrum and the head as it were is shelled out of the vagina.

Deventers' method is chiefly useful in the cases where the arms have become extended over the head. By this method the child is grasped as in that bearing the name of Prague, but extension is chiefly and forcibly downward causing the arms to be pressed against the sacrosciatic ligaments and favoring extension. "The occiput appears at the vulva and is born first and then come the head and arms." To be most successful this method usually requires a roomy pelvis.

By the Wigand-Martin method the arm of the operator is made to extend along the under surface of the child until the tips of the first and second fingers can be hooked over the lower jaw. The head is then flexed and drawn down. With the other hand powerful, but not brutal, pressure is made on the occiput through the abdominal wall downward in the direction of the axis of the superior straight.

A number of useful manoeuvres are classed under what is known as the Smellie-Veit method. The principle of these is to secure flexion of the head by pressure over the malar bones or by traction on the lower jaw with the fingers placed in the mouth. Pressure upward on the occiput beneath the arch of the pubes will aid further in maintaining flexion and is part of this method. When flexion of the head has been secured the fingers beneath the arch of the pubes are slipped down over the shoulders as in the Prague method, the body of the child meanwhile resting on the arm of the operator. Since the indications for one or the other of the above methods have been more generally understood, the use of forceps as the last act in version has been greatly reduced. More than this in cases where conditions are favorable for version and yet the question of the greater value of forceps is in the balance, the preference can be given to version if flexion of the foetal head will be maintained by the methods just referred to. This question of flexion is especially important in version where the pelvis is universally contracted

(Justo-Minor). In the flat pelvis it is not a matter of so much importance. It is well, I repeat, to remember that flexion is encouraged by following the uterus down from above with pressure during the descent of the child. Absolute uterine inertia requires the solving of many problems before the life of the mother and the child can be guaranteed. The part that version may be called upon to play in this important complication of an abnormal labor may be various. This however may be said of any procedure where such a condition exists. As to the various pathology of uterine inertia it is not within my province to speak. But occasionally a cervix that will partially stretch but not dilate is met with. To turn and drag the breech or head through this ring will usually result in a complete rupture of the cervix up to or through the vaginal fornix into the broad ligament or peritoneal cavity. In the latter event death of the mother is the usual melancholy sequel. Deep anesthesia carried to the point of danger as well as the various methods by which drugs are given internally or applied locally have failed to make the cervix dilate. I have never attempted the deep incisions into the cervix recommended by Dührssen. Should I ever again meet a complication of this character I would not hesitate to use the knife, but would have the same fear that has influenced me in the past of the incision being converted into an indeterminate tear at the acme of delivery of the breech or head. It is important to state that Dührssen insists that multiple incisions prevent this extension. The so-called ring of Bandl must not be mistaken for the condition of the cervix just spoken of. The latter is due to the upper part of the uterus contracting and getting thicker, while the lower segment from persistent stretching becomes thinner and thinner. "It is felt internally, when the hand is introduced into the uterus, as a ridge, sharply defined and projecting inwards, and externally by abdominal palpation, as a furrow. This is Bandl's ring." This thinning of the lower uterine segment is sometimes met weeks

preceding the advent of labor. Through the abdominal walls of the woman the child can be felt as if it were free in the peritoneal cavity. In the two cases which have come under my care this condition was discovered through the examinations above referred to made every two weeks in the latter months of pregnancy. The question of an obstetrical operation such as version, no matter how imperative the demand in a condition such as this, would be fraught with danger to the child, certainly so to the mother. Whether the condition is similar to or identical to the ring of Bandl, I have no means of knowing. If there is literature on the subject I have been unable to find it. It is possible that the development of the ring of Bandl may proceed some of the labors in, which it appears many weeks and that if it were the rule to examine pregnant women oftener that this complication would be anticipated. However, our interest in this paper must center around the proper technique of version. Therefore the ring of Bandl and allied conditions can only be studied from this standpoint. It is thus important to know that sometimes even when the head can be forced from the uterus it is the part of wisdom to desist. Further, let us remember that version is but one of the many useful aids which have come down to us from the masters of the past by which a living child can be delivered to the world and its mother left to develop it.

CAESAREAN SECTION AND PORRO'S OPERATION.*

BY CHARLES B. REED, M. D.

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The frightful mortality which attended the old Caesarean operation was responsible for the almost universal substitution therefor at one time of the Porro method which showed itself to be the safer procedure, since the large wound in the uterus in di-

*Read at the Fiftieth Annual Meeting of the Illinois State Medical Society, Springfield, May 16, 1900.

rect relation with the peritoneal cavity was replaced by the small stump which was easily accessible in the lower angle of the abdominal wound. With changing conditions surgical art so far advanced that the two operations are no longer competitors in the same field, but rather one supplements the other. The indications are definite in each case and rarely conflict.

INDICATIONS FOR CÆSAREAN SECTION.

The indications are usually divided into absolute and relative. Absolute, when there is no alternative and delivery cannot be effected, and relative when there is a choice between this and other procedures.

The absolute indications are:

1. Contracted pelvis.
Flat pelvis with c. v. 6.5 c. m. ($2\frac{1}{2}$ in.) and child living.
Gen. contracted pelvis 7 ($2\frac{3}{4}$ in.) to 7.5 c. m. (3 in.) or
Pelvis with 5.5 c. m. ($2\frac{1}{4}$ in. c. v. and child dead.
2. Presence of large bony growths (exostosis) in pelvis.
3. Extreme atresia of lower genital tract either congenital or acquired.
4. The occurrence of a grave accident in labor as rupture of uterus or sudden maternal death.
5. Carcinomatous degeneration of cervix or vagina.

The relative indications are more difficult to formulate and must be determined usually according to the requisites of each case.

Cæsarean section competes with symphysiotomy when the child is alive and the c. v. varies from 6.5 ($2\frac{1}{2}$ in.) to 7.5 c. m. (3 in.). Craniotomy must be chosen in all cases where the child is dead and the conj. vera of the pelvis will permit the delivery of the mutilated child.

THE PROGNOSIS.

The prognosis depends chiefly upon the condition of the mother at the time of operation, but is subject to many influences, such as the skill and experience of the oper-

ator, the circumstances attending the individual case (assistants, place of operation, etc.) so that only general results of somewhat uncertain value can be given.

Leopold and Haake find that gonorrhœal infection, latent or subacute, exercises a very unfavorable influence upon the subsequent course of Cæsarean section and hence in these cases either craniotomy or Porro's operation is advised. Nephritis and anæmia of a high grade is also a contraindication according to these authors.

The unfortunate features of Cæsarean section which sometimes arise aside from fatal issue are due to suppuration of the uterine sutures and the formation of adhesions between uterus and abdominal wall, which subsequently cause trouble during menstruation. The maternal fatalities occur usually from hemorrhage or sepsis and may be roughly estimated at from 5% to 10%. Fœtal mortality 6% (Bar).

For the Porro operation statistics vary, some authors give as high as 48% to 50%. Harris, of Philadelphia, gives in 400 cases a maternal mortality of $27\frac{3}{4}$ % and a fœtal mortality of $18\frac{1}{4}$ %. It is only fair to state that in Porro's own cases he has nearly 100% of recoveries. The mortality in the operation could be greatly diminished if the conditions given by Reynolds were generally observed, i. e. when maternal vitality has been seriously lowered either by septic infection, prolonged labor or complicating disease, the mortality of Cæsarean section is so high that it is an unjustifiable operation, and in such cases symphysiotomy should be done if applicable, if not then craniotomy on the living child in behalf of the mother.

Second, when the mother is in good condition, generally sound and uninfected, not exhausted by long labor or prolonged attempts to deliver by forceps, Cæsarean section is so safe an operation that it may be used unhesitatingly in cases at term whenever intrapelvic delivery would be fatal to child and may often be preferred to induction of premature labor on account of its superiority in saving fœtal life."

TIME OF OPERATION.

The operation may be performed either before or during labor or after the mother's death. As an operation of election the most desirable time under any of the absolute indications is at term or when the labor pains begin.

In those cases where the patient is not seen until labor is under way the operation should be performed as early as possible to avoid the profound exhaustion that invariably attends neglected cases and seriously adds to the mortality.

PREPARATION.

Being absolutely certain of the diagnosis the preparations are the same as for any laparotomy.

Four assistants are desirable, one for anaesthesia, one to assist the operator directly, one to attend to instruments and sponges and one to take care of the child.

The abdomen, pubes, and vagina (when septic) are sterilized to the last degree, bladder emptied and for the conservative operation a dram of ergot is injected hypodermically by some operators.

The Trendelenburg posture is more satisfactory for Porro operation, although this is a matter of personal option.

INCISION.

Incision in abdomen should be from six to eight inches long, and is made directly over the most prominent part of the uterine enlargement, and in the median line. Extreme care must be used to avoid cutting too quickly through the abdominal wall, since owing to the distention and pressure it is much thinner than usual and there is danger of cutting prematurely into the uterus and even injuring the foetus.

After opening the peritoneum the uterus comes quickly into view and is delivered by the left horn through the abdominal wall, (the incision of uterus within the abdomen is preferred by many). The intestines are carefully protected by warm gauze sponges and towels and the assistant keeps the abdominal walls in close contact with the uterus while two or three sustaining sutures

are passed through the abdominal wall behind the uterus.

The cervix is now grasped by the assistant as low down as possible and compression made on the arteries to avoid hemorrhage. Rapid examination determines the site of the placenta and avoiding this, but as near the median line as possible, a small incision is made in the uterus and passing the fingers through it the wall is torn as far as necessary. The child is seized by one or both feet and delivered.

If the operation is not one of election it may happen that the head is wedged in the pelvis and some force must be used, possibly assisted by a hand in the vagina, to release the head. The cord is clamped in two places with compression forceps, divided between them and the child passed to the assistant to be revived. The uterus is briskly rubbed to induce firm contractions and if placenta is not thereby released it is grasped with the full hand and gradually twisted away with the membranes. Large pieces of decidua remaining should be removed but small fragments may be left.

If necessary the uterus is kept in firm contraction by use of massage, and the deep sutures, 14 to 18 in number, of formalin gut, are introduced, passing through all the deeper tissues about $\frac{1}{2}$ inch apart. They may be introduced and tied as fast as passed or they may be passed as a continuous suture and then the division of the loops gives a series of individual stitches.

The hemorrhage usually ceases quickly when the uterus contracts, if not, the bleeding from the wound is easily controlled by the deep sutures and slight blanching of the tissues shows when the stitches are drawn tight enough. The row of superficial stitches of fine formalin gut is now passed to accurately coapt the peritoneal edges. The uterus is now drawn forward while the peritoneal cavity is cleansed and then replaced with the omentum carefully tucked behind it to avoid omental adhesions. The abdominal wound is now closed as usual, using continuous silk sutures for peritoneum and interrupted su-

tures for fascia, muscles and skin, the line of incision in the latter being sealed with collodion dressing.

The entire operation should not last over an hour.

For the Porro operation the indications may be classified as follows:

1. All cases where owing to the general conditions Cæsarean section is indicated and the removal of the uterus is required.
2. When the child is dead and infection of uterus has taken place.
3. Extensive atresia of vagina, preventing discharge of lochia.
4. Carcinoma of cervix.
5. Atony uteri or uncontrollable hemorrhage from placental site.
6. In cases of ruptured uterus where suture is unsafe.

The Porro operation has been expanded to include all operations which terminate in the supravaginal amputation of uterus.

In this operation a rubber ligature may be placed around the cervix and the operation conducted as before up to the detachment of the placenta which may be left if desired.

The ovarian vessels are successively ligated, near the brim, clamped near the uterus and severed between. The round ligaments are also tied and divided. The vesical peritoneum is next separated from the uterus and bladder and peritoneum are pushed down back of symphysis.

The uterine arteries are now tied and if total hysterectomy is not indicated the uterus is amputated about $\frac{3}{4}$ in. above the constricting ligature. The cervical canal is carefully sponged out, possibly touched with iodine or carbolic acid, and the anterior and posterior lips sutured, and the whole closed in by uniting the anterior and posterior layers of the broad ligament and the vesical peritoneum and attaching the same to the cervical stump by continuous or interrupted catgut sutures.

If total hysterectomy is necessary as in the case of cervical carcinoma the uterine arteries are tied near their origin from the internal iliac and a careful dissection is made downward from this point to secure

the removal of as much of the cellular tissue and glands as possible, being continually alert to protect the ureters. When the vaginal vault is reached the pelvic peritoneum should be guarded on all sides by gauze sponges before the vagina is divided.

The uterine mass is lifted out and the anterior and posterior walls of the vagina are united with catgut sutures, the broad ligaments and peritoneum treated as before. Weak iodoform gauze is packed loosely into the vagina and the abdominal wound is dressed as before.

The advantages of the Porro method over the conservative operation lie somewhat in the rapidity of the work, but more in the prevention of hemorrhage post partum and the diminished chance of infection.

It must be kept in mind, however, that the conservative operation is the ideal one and should always be done unless the Porro is positively indicated.

The operations as described are according to the surgical sense of today, but some innovations in technique must be noted which are strongly advocated, as for instance the Fritsch incision made transversely in the fundus of the uterus. It is claimed by the advocates of this method that the child delivers much more easily, the risk of subsequent hernia is reduced, the abdominal wound is higher, sutures are more easily placed, subsequent scar is firmer and fluids are prevented from entering the abdominal cavity, while the passage of sutures across the path of the vessels instead of parallel with them favors hæmostasis. It is also claimed that there is less chance of cutting placenta since Bidder found a fundal implantation of placenta only eight times in 139 cases. Hahn, however, cut the placenta with this incision three times in eleven cases. Steinthal also maintains that the Fritsch incision does not always permit the extraction of the foetus and an additional longitudinal incision is sometimes required. Another author (Cryzewicz) claims that the Fritsch incision results in uterine atony. Everke with an experience of 25 cases finds that the wound heals badly because the vascular supply is

interfered with, that secondary infection is probable and that there is a greater chance of visceral adhesions. Müller also advocates a sagittal incision at the fundus, but these various methods simply demonstrate that the point of the incision or the direction thereof exerts no appreciable effect on the case if the technique is perfect.

It would seem desirable to avoid if possible the placental site, but even this has been incised accidentally many times without serious results, and one author goes so far as to recommend it, claiming the delivery of the placenta is greatly facilitated.

The Dührssen vaginal Cæsarean section, however, presents a new phase of the question and is performed by incision of the anterior and posterior vaginal walls at the junction with uterus, separation of bladder and vesical and posterior peritoneum follows, arteries and broad ligaments are clamped or crushed. Incision of anterior and posterior walls of cervix and lower uterine segment to internal os, hemorrhage being controlled, hand is introduced, extraction of child and placenta follows with subsequent suture of the wound.

He advocates this operation in: 1st. All abnormalities of cervix uteri and lower uterine segment which render dilatation difficult or impossible (carcinoma, myoma, rigidity, stenosis, etc.).

2d. Danger to mother which the rapid emptying of uterus will relieve, disease of heart, kidneys and lungs).

3d. Conditions of danger to mother which presumably will cause death.

The operation has been done eleven times with three deaths. It is contraindicated in all pelves of less c. v. than $3\frac{1}{4}$ in. (8 c. m.), also in placenta previa. It should never be attempted without facilities equal to those of a hospital or without practiced assistants. It supplements rather than supplants the classical operation.

A case of suddenly discovered cervical carcinoma, the woman being near term, and having no pelvic contraction, presents the operation in its most favorable aspect and after delivery of the child vaginal hysterectomy can be done.

Rigidity of cervix is somewhat more questionable as an indication unless high up, say at Bandl's ring. Scar tissue in lower uterine segment according to Strassmann presents an element of danger in subsequent pregnancies. However, the operation marks an advance in technique and will be useful under strict conditions.

In conclusion, another point that should be considered in justice to the woman is the problem of future sterility. This should be definitely determined by discussion in advance and in all cases before the abdomen is closed, if this is decided upon, the tubes should be removed in all those cases where the conservative operation is done.

The occurrence of another pregnancy should be effectually prevented, if possible, as in many cases unless this is done the woman is hurried on helplessly and involuntarily to another laparotomy.

SYMPHYSIOTOMY.*

BY GEO. N. KREIDER, M. D., SPRINGFIELD.

Professional opinion regarding operations and procedures has its periods of ebb and flow. At one time an operation may occupy much of the professional horizon, at another time be in a state of partial or complete eclipse. Preconceptions and prejudices influence our judgment more than most of us care to admit. No operation illustrates the truth of this remark better than the operation of symphysiotomy. When first proposed in Paris by Sigault in 1768 it was ridiculed. In 1777 after he had performed the operation and saved both mother and child, the medical profession of France considered the operation in the highest tribunals and became divided into caesareanists and symphysiotomists. The "wild scheme of the ignorant youth" was recognized by a pension and medal from the government of the country.

The enthusiasm of the first successes having died away, the operation fell into dis-

*Read at the Fiftieth Annual Meeting of the Illinois State Medical Society, Springfield, May 16, 1900.

favor and for many years was unheard of. The modern revival, dating from January, 1866, is due to the efforts of surgeons in Naples, Italy. Their caesarean sections showing a frightful mortality, they renewed symphysiotomy and succeeded in saving 60 out of 70 mothers and 62 out of 70 children. The attention of American surgeons was called to the operation by that eminent writer, Robert P. Harris, of Philadelphia, of blessed memory, and since 1892 operations have been made by many surgeons in the United States and Canada. It will not be my purpose to present statistics of the operators in all parts of the world or even this country. As nearly as possible I wish to give a resume of the work done by operators in Illinois, the sole exception being that I will mention the work of Dr. Edward A. Ayers, a sucker by birth and my valued friend and classmate in New York City, where he has practiced the obstetric art for nearly twenty years. Dr. Ayers has written valuable papers on this subject and invented a knife and a hammock bed which facilitate the operation and the after-treatment.

As were the profession of France in the 18th century, so the operators of today are divided into caesareanists and symphyiotomists. Reviewing the field in a critical way it would appear that the enthusiasm of some writers of '93 and '94, myself among the number, has not influenced the general adoption of the operation. I believe, however, that symphysiotomy has a place in our list of obstetric procedures. Like any and all operations on puerpera there are great dangers connected with it and deaths have occurred which are very disagreeable to the mental condition, the reputation and the statistics of the operator. But as Prof. Zweifel, of Leipzig, said at Moscow, "Is there no danger connected with caesarean section?" Truly I believe it might be said that caesarean section, prolonged efforts with the forceps, and embryotomy have destroyed lives of both mothers and children which might have been saved by the employment of symphysiotomy. Of these deaths we hear little, the grave has covered

them from sight and convenient forgetfulness prevents them from getting into print. If we hear of a death after symphysiotomy we are apt to condemn the operation at once and for all time.

Thus considered I must array myself among those who believe symphysiotomy has a place, somewhat limited, in obstetric surgery. I entirely agree with Dr. Webster in his statement and here repeat his

"INDICATIONS FOR SYMPHYIOTOMY.

This operation is best regarded as an adjunct to delivery by the axis traction forceps. It may, therefore, be employed, speaking generally, where forceps delivery in the Walcher position is impossible, and where there is no doubt that the increased pelvic measurements resulting from the operation will allow the head to be extracted.

It may be tried:

1. In cases of pelvic contraction. Most authorities mention a limit of 2.6 to 3.2 inches in flat pelves, and 3.2 to 3.9 inches in justo-minor pelves. It is evident, however, that the employment of the axis traction forceps in the Walcher position must make unnecessary, in a considerable proportion of cases, the cutting operation.

It is also clear that symphysiotomy at full time must greatly diminish the necessity for inducing premature labor in cases of pelvic deformity. For a living child delivered at term by the axis traction forceps, with the aid of a symphysiotomy, is preferable to a premature delivery, with its risks and the uncertainty with regard to the rearing of a weakly child.

2. Symphysiotomy also has a place in impacted brow and face cases, where delivery cannot be safely carried out with axis traction forceps and the Walcher position.

3. In cases where the head is abnormally ossified or a little enlarged, and delivery cannot be effected by the axis traction forceps, and the Walcher posture."

A. J. Ochsner, of Chicago, writes: I have performed the operation but once and, consequently, am not entitled to an opinion based on experience in the matter. I believe that in future I shall perform a

caesarean section, in preference, if the child is living.

Jos. B. DeLee, of Chicago: I think the operation has a legitimate field, but limited. Should only be done in favorable cases, mother and child in good condition, pelvis not too contracted—not less than $7\frac{1}{4}$ to $7\frac{3}{4}$ c. m., and only in those cases where forceps have failed or show no outlook for living baby.

C. S. Bacon, of Chicago, writes: I have never done the operation although I have advised it in a few cases. In one case where the operation was refused by the family, and a high forceps done with such injury to the child that it died within thirty hours, I have no doubt that the symphysiotomy would have saved the child. In cases of not too great disproportion between the foetal head and the pelvis, when the prospect of a spontaneous termination is hopeless or rapid delivery is indicated, if the foetal heart tones show that the child is not very feeble, I believe that symphysiotomy is the operation of choice, provided that the operator has mastered the technique so that he can avoid the immediate dangers of the operation. Aside from these dangers the great objection is the fear of subsequent disability from an imperfect closure of the pelvic circle. To provide against this danger one must be prepared for a careful and sufficiently continued postural treatment of the woman in child bed. The circumstances of the patient, the nature of her work, her desire for a child as well as the importance of the child in the family may also be properly taken into consideration.

H. P. Newman, of Chicago, writes: I have always been an advocate of the operation, being among the first to perform it in Illinois. It is an important and valuable contribution to major surgery, and is indicated not only in cases of contraction of the pelvis, but in disproportion of the child's head, as in my first case. I believe most of the objections urged against it are ill founded. I have never seen any undue hemorrhage, sepsis or mobility result. Even those cases of spontaneous separation of the

symphysis of which I have seen several, two very pronounced, have made perfect recoveries.

Frank B. Earle, of Chicago, in a paper read at the forty-seventh annual meeting of this Society, says in part: I support a procedure which I believe has a legitimate field in obstetrics midway between caesarean section and embryotomy. It should be done as an operation of election and not after repeated ineffectual attempts to deliver by forceps or version. The simplicity of the operation, the easy preparation, the ready consent of the patient and friends, render it possible of accomplishment, where the more formidable section would be absolutely refused or fraught with greater danger. Both maternal and fetal mortality compare favorably with that of induced labor, embryotomy and caesarean section.

Denslow Lewis, Chicago: My opinion of symphysiotomy is that it is especially indicated in impacted cases when the child is alive and the only alternatives are caesarean section or craniotomy. In other cases where the gain of $1\frac{1}{2}$ inch or so will permit the delivery of a living child and one that is likely to continue to live symphysiotomy should be done just as soon as we recognize the improbability of delivering a live child by forceps or version. If women were regularly examined about the seventh or eighth month of pregnancy the indications for the different obstetric operations would be accurately determined in most instances and impacted cases would rarely occur. It is of importance with symphysiotomy as with all procedures undertaken for the benefit of a woman in labor to operate before the patient is exhausted or has become infected by fruitless and irrational attempts at delivery.

T. J. Watkins, Chicago, in a communication says: My patient died as a result of shock and sepsis as a consequence of carelessness and active attempts at delivery protracted over a period of twenty-four hours before she was sent to the hospital for my care. The child died. The case was such a

hopeless one that it is really an injustice to the statistics of symphysiotomy to include it.

H. McKennan, of Paris: Symphysiotomy is not so formidable but that it may be performed by any physician of ordinary ability. The patient must be free from sepsis and exhaustion. The technique is immaterial so long as it is clean and expeditious. The after-treatment demands absolute immobility of the divided symphysis and daily inspection and cleansing of the patient. Expensive beds and apparatus are sometimes convenient, but not necessary for the success of the operation. Your patient may be operated upon in her own home, among her own surroundings, and by her own physician.

A. Goldspohn of Chicago: My case was undertaken when the patient had a pulse of 140 and temperature of 102. The soft parts of the pudendum oedematous after five successive attempts by others with forceps, and three different narcoses. The condition of the patient seemed to be too precarious to undertake a caesarean section. Pelvis supported by a strong assistant during delivery of child by forceps, but still the severed ends of bone at symphysis separated fully 2 inches, and urethra was torn in two. Some bleeding stopped by deep sutures. Wired ends of bone together by passing strong needle through the periosteum. Supra-pubic gauze drain and vaginal gauze drain. Most alarming feature was uterine inertia after delivery. Hemorrhage moderated by constant vagino-abdominal compression of uterus, and stopped finally by a galvanic current interrupted applied with a boiled rectal electrode in the uterus and pad on abdomen. Child with medium sized head lived 3 hours. Autopsy on same showed a tear of scalp and rupture of longitudinal sinus posterior to the anterior fontanel (evidently from excessive use of forceps before this operation was done). Mother was in bed about a month. Had some temperature and moderate suppuration of soft parts back of symphysis, but regained as good a locomotion as she pre-

viously possessed and without movement of bones at the symphysis. I am quite convinced that this patient (a severely neglected or maltreated case) would not have survived a Porro operation, nor a caesarean section. In this the most difficult thing, the inertia of the uterus, would probably not have been overcome.

Regarding methods of operation adopted by Illinois operators, McKennan made use of a small probe pointed metacarpal saw, after the initial incision with a knife, in his first case. In his second case he used a small probe pointed bistoury. The joint was severed in my case by a probe pointed lithotomy knife.

H. P. Newman has used the Galbiati knife in his operations.

M. L. Harris has described a method of making this operation in the *American Journal of Obstetrics*, Nov., 1894, which is in brief as follows: A free incision is made over the symphysis terminating a little above the clitoris, and the retro-pubic tissues pushed carefully away. When the bone is reached the finger should be introduced posteriorly between the recti muscles into the *cavum Retzii*, and the bladder and peritoneum should be thoroughly separated from the entire posterior surface of the symphysis well down to the arch. As the bones are more widely separated in the front, it will be found easier to open the joint from before, backward with an ordinary scalpel; the finger introduced posteriorly prevents any possible injury to the neighboring structures. The symphysis should always be completely divided until the ends of the bones are held together only by the *ligamentum arcuatum* and the deep perineal fascia, or so-called triangular ligament. These structures should now be carefully separated from the arch of the pubis by a blunt pointed bistoury under guidance of the finger, closely hugging the bone on each side. As fast as the tense fibres are divided from the arch it will be seen that the space at the symphysis gradually widens. This I consider the most important step of the operation, and if the ligament and fascia be carefully detached laterally from the

bone all danger of hemorrhage and laceration of the soft parts will be effectually avoided.

Finally, a word concerning the operation of our old Illinoisan, E. A. Ayers, of New York, editor of *Obstetrics*, who has kindly favored me with the manuscript of his last paper describing his subcutaneous operation, and improved hammock bed. Concerning the subcutaneous operation he says:

1. Secure full dilatation of the cervix be-

the tip of the bistoury together at the top of the joint, then work the blade downward with the left finger accompanying it to within one-fourth inch of the subpubic arch. Then take out the bistoury and invert it and cut from below up to the separated part thus avoiding injury to the bulbi vestibuli just beneath the joint.

5. On removing the knife, the joint having separated, have an assistant press a pad of bichloride gauze over the wound and

TABLE OF SYMPHYSIOTOMIES PERFORMED IN ILLINOIS.

No.	Date of Operation.	Place.	Operator.	Age.....	Conjugate..	Presentation.	Result to Woman.	Result to Child.	Cause of death of Woman.	Remarks.
1	Dec. 16, 1892	Paris.....	H. McKennan..	31	2 $\frac{3}{4}$	Vertex	Recovered	Alive.....	.....	.....
2	March 2, 1893	Springfi'd	G. N. Kreider ..	26	3 $\frac{1}{8}$	Vertex	Died.....	Dead before } Operation... }	Sepsicæmia 11 } days after operat'n }	.....
3	May 3, 1893	Chicago ..	H. P. Newman..	29	3 $\frac{1}{2}$	Vertex	Recovered	Alive.....	.....	.....
4	May 23, 1893	Chicago ..	A. Goldspohm..	30	13 $\frac{1}{4}$	Vertex	Recovered	Died. ....	.....	{ Child lived three hours.
5	Sept. 1, 1893	Chicago ..	S. Leavitt.....	30	3 $\frac{1}{2}$	Vertex	Recovered	Alive.....	.....	.....
6	Nov. 24, 1893	Chicago ..	B. Robinson ..	27	3 $\frac{1}{8}$	Vertex	Recovered	Alive.....	.....	.....
7	Dec. 19, 1893	Chicago ..	T. J. Watkins...	43	...	Vertex	Died.	Died.....	.....	{ Woman died in 12 hours ..
8	Feb. 17, 1894	Chicago ..	H. Banga.....	35	2 $\frac{5}{8}$	Tr'nsverse	Recovered	Alive.....	.....	.....
9	June 19, 1894	Chicago ..	M. L. Harris ..	28	2 $\frac{3}{4}$	Vertex	Recovered	Alive.....	.....	.....
10	Sept. 20, 1894	Chicago ..	M. L. Harris...	28	2 $\frac{3}{4}$	Vertex	Recovered	Alive.....	.....	.....
11	Jan. 23, 1895	Chicago ..	A. J. Ochsner ..	36	...	Vertex	Died.....	Died.....	{ Hæmorrh'ge from varicose veins in vagina .....	.....
12	April 22, 1895	Chicago ..	Denslow Lewis	35	4	Impact'd } Brow }	Recovered	Alive .....	.....	.....
13	October, 1896	Macomb ..	S. C. Stremmel..	39	...	Vertex	Recovered	Alive .....	.....	.....
14	June 16, 1897	Chicago ..	H. P. Newman..	18	...	Impact'd } Brow }	Recovered	Alive .....	.....	.....
15	Nov. 4, 1898	Paris.	H. McKennan..	30	2 $\frac{3}{4}$	Vertex	Recovered	Alive.....	.....	.....
16	May 11, 1899	Chicago ..	J. B. De Lee....	30	3 $\frac{3}{4}$	Breech....	Recovered	Alive .....	.....	.....
17	Sept. 18, 1899	Chicago ..	J. B. De Lee....	23	...	Vertex	Recovered	Alive.....	.....	{ Funnel shap'd pelvis

fore beginning the operation, if possible, without risk to the child.

2. Have the urethra and bladder held to the left side with a sound.

3. Make the initial incision with a small scalpel aiming to cut a path upon the face of the symphysis for a probe pointed bistoury that is to follow, keeping the scalpel close to the bone and under the clitoris.

4. Substitute a probe-pointed bistoury for the scalpel after introducing the index finger of the left hand in the vagina against the posterior edge of the symphysis, up to the top, and bring the tip of the finger and

face of the joint, keeping it there until the child is delivered. This will prevent hemorrhage and lessen liability to infection.

A valuable aid in the aftertreatment is the Ayers hammock bed, which can be made in a few hours by a gas fitter, or extemporized of wood by a carpenter. It consists of one upper middle canvas on its own poles for supporting the pælvís and bringing the pubic bones in close contact and a second on its own poles consisting of two pieces of canvas for holding the chest and head, and the lower extremities but so spread out that these parts of the body are not cramped

in a trough as is the pelvis. The pelvic hammock is at a fixed elevation, though the poles can be placed close together or apart and the under hammock is adjustable to the level of the other. The pelvic canvas has an opening six inches in diameter through which all discharges pass to the bed-pan beneath. The latter is supported against the buttock by a canvas band attached to one of the lower poles on one side and kept taut over the other lower pole by a rubber tube. Extrusion of the buttocks through the hole in the pelvic piece of canvas, and the consequent liability to bed sores is thus sufficiently opposed without affecting the important function of this canvas in holding the pubic bones together.

REPORT OF THE FOURTH ILLINOIS VOLUNTEER INFANTRY IN THE WAR WITH SPAIN.*

BY T. C. M'CORD, M. D., MAJOR AND SURGEON,
PARIS.

About 2 A. M. April 26, 1898, the ringing of bells announced that the home company had received orders to report to their colonel at the State capital, where they were to mobilize with other State troops and there prepare for supposed real warfare.

On the date of the order about ten thousand (10,000) officers and men reported for duty, as nearly all companies had been recruited to their full complement in anticipation of action, but as this report is supposed to be physical, I will endeavor to confine my paper to that feature.

The State of Illinois was probably more favored than her sisters in having for its Surgeon General no less luminary than the distinguished Nicholas Senn, who established a post graduate school at Camp Tanner, immediately procuring a cadaver, upon which numerous capital and minor operations were performed, demonstrating recently improved operations from the surgical centers of Europe and experiences in the Turko-Grecian war. The wonderful sal-

vage of aseptic, antiseptic and conservative surgery, the inestimable advantage of the first aid package (sewn in the left hand corner of the blouse, etc.) The effects of projectiles at known distances, angles, atmospheric deviations, etc. Lectures and discussions on diseases peculiar to camp by each medical officer. No "papers," for each was thrown on individual resources, without pony or prompter, to fight out his own salvation in the presence of distinguished professors and specialists. But the country doctor more than held his own in the general examinations to come, for he takes all the parts on the medical stage, from "leading man" to "soup," from title role to servant, while the specialist, if he is jumped out of his groove, flounders back to what he can remember of general medicine of college days. In the vernacular of the street, if "he gets off his trolley" his light goes out.

The army surgeon is a "misnomer," and should be styled army physician, for he sees a hundred medical cases to one surgical in any war, not excepting our civil war or the war in Africa. The true surgeon knows not only how to cut, but what is vastly more important, when not to cut. There were cords of legs and arms taken off during the civil war that would be saved today, and thousands died on the battlefield who could have saved themselves by instinctively placing the "first aid package" over the wound, if left alone by advance or retreat, not to mention comrades and members of hospital corps supposed to be near. The first aid was as important as guns at inspection, and the large linen three-cornered bandage, containing diagrams and modes of application were posted in every company street, and the men were instructed how to apply them.

After a month's work at camp post graduate school of military instruction, the only one in this or any other country, we took our examinations—the physical was as rigid as the mental—conducted by Col. Nicholas Senn, Captain Birmingham, Assistant Surgeon U. S. A., and Lt. Col. C. C. Carter, Surgeon of the Third Brigade, Illinois National Guard.

*Read at the 53rd. Semi-Annual Meeting of the Aesculapian Society of the Wabash Valley, Terre Haute, May 10, 1900.

On the 26th of May, just one month from the day we were called to Springfield, we were ordered to report to Gen. Shafter's corps, Lawton's division. But an order from the war department intercepted us in Alabama and sent us to Jacksonville, Fla., owing to lack of transports at Tampa. So the fortunes or misfortunes of war knocked us out of the glory awaiting us, or perhaps prevented us from being knocked out of existence, as was the intrepid Gen. Lawton, to whose division we were assigned. The boys seemed very much disappointed in not taking part in active service, but I am reminded of the boy who accidentally shot himself through the calf at Jacksonville, and yelled like a Comanche for about two hours, and as was facetiously remarked by a wag of his company, the ball wounded two calves. There are all temperaments in military as in civil life, but the American soldier can always be depended upon in a fight. This war was worth the price for cementing the North and South, if we had lost all else. The patriotism and hospitality of the Southern people could not have been exceeded. Our entire route was lined with fair women and brave men, and we were provided at every stop with everything to tempt the eye and stomach, from flowers and angel food, etc., to things Bohemian and Teutonic, and as our colonel fought with Seigel, was born near Sweet Bingen, whose first lay was "Wachtam Rhein," things Teutonic had the call. While writing of the patriotism of the Southern people, I wish to refer to an incident that occurred a little more than a year ago at Augusta, Ga., a few days before we were mustered out.

It was Confederate Memorial day. Our colonel (a splendid big-hearted man), a captain in the Fifth Cavalry in the regular establishment, tendered the Augusta Post our band, which was graciously accepted. I accompanied Col. Jim Tilman, of the house of "Pitch Fork Ben," to the cemetery, and as our band crept by at one-half cadence, followed by the Confederate veterans in the old tattered grey jeans uniforms worn in battle, some with legs and arms gone, all

carrying crutches or canes, it was a sorry sight, and I instinctively lifted my hat and placed it on my breast when the old tattered "stars and bars" approached, and hardly realized I had saluted the Confederate flag until Col. Tilman took me by the hand, and assured me of the solidification of the North and South.

Our corps was certainly sentimental. The wildest pessimist would have scoffed the idea of a Lee and Grant being on the staff of a Gen. Lee in a war with this or any other country, to say nothing of Longstreet, Harrison, Gordon, Hobart, Tilman, McClelland and even Col. Young, a capital fellow, son of the prolific Brigham, all officers in Gen. Fitzhugh Lee's corps (the Seventh). The regular army surgeons in the Seventh corps were capable and obliging, always ready to assist the volunteer surgeon with his intricate paper work and keeping of records, the terror of the volunteer surgeon.

I will always appreciate the kindnesses, courtesies and favors shown by Cols. Maus and Kean, the corps surgeons, and Major Pitcher, in charge of the medical supply depot, and the lamented Major Clendenin, who died of yellow fever at Santiago last fall. Major Clendenin had charge of the Maine victims, and probably knew more of the horrors of that crime than anyone else, little thinking he would so soon be sacrificed on his country's altar.

Major Pitcher, Secretary of the Association of Military Surgeons of the United States, in charge of the medical supplies in Florida and Georgia, never refused my requisitions, and if he didn't have it in stock would send out and get it.

The military surgeon as well as the soldier must learn to look out for himself. When the Fourth Regiment arrived at Jacksonville, Fla., we had more medical supplies than were in the entire corps. More staples perhaps than the average drug store carries. Our requisitions were padded, repeated and duplicated, until we took a well supplied dispensary south with us, and well we did, for the government had her hands full at the beginning of the war, and medicines

were hard to procure. Day after day orders came to turn over supplies to the government, but we diplomatically evaded the order by not knowing State property belonged to the federal government, and held on to our supplies, which we very much needed. The Fourth Illinois was the only regiment supplied with stoves at Savannah, Ga. The Ninth Illinois adjoining us was having an epidemic of spinal meningitis, supposed to be due to exposure. Men were dying every day, and it was getting alarming. We knew the depot quartermaster had Sibley stoves at the dock. Col. Swift told me if I could get the requisition through brigade headquarters, he would take it to Col. Ballinger, with whom he campaigned on the plains. So by discarding red tape and doing the work of an orderly we succeeded in getting the stoves, though they were not to be issued, as we were supposed to be in a tropical camp, notwithstanding our tents were coated with ice and the men were suffering with cold.

The Fourth Hospital Corps was recruited from civil life, boys of good habits and education, composed of physicians, lawyers, druggists and students. Out of the twenty-four members of the corps they were nearly all advanced to stewards, acting stewards or ward masters. There were more stewards and acting stewards promoted from the hospital corps of the Fourth Illinois than from all the other twenty-eight regiments in the corps. This seeming incredible record was not due to chance or favor, but to the fitness of the men selected for the purpose. (This reform was instituted by Surgeon General Senn, and should be adopted by the United States Army.) In other regiments men were detailed two from each company, and of course the captains would send their objectionable material, a rare opportunity to unload.

Our worst enemy was typhoid fever. Our camp was infected in the marshes of Florida, and the indiscriminate administration of salol prevented nearly the entire regiment from being affected. We would disinfect the alimentary canal with salol as regularly

and for the same purpose we covered the foecal matter in the sinks with carbolic acid and lime. I was surgeon of the second brigade, third division, composed of the Sixth Missouri, First and Second South Carolina and Fourth Illinois, during the epidemic of typhoid fever, when half of the brigade was sick. If quinine failed in large doses to reduce the temperature, the third day they were sent to the hospital, diagnosed typhoid fever, where the diagnosis was confirmed by the microscope, laparotomy or post mortem.

I am thoroughly convinced of the theory of fly infection of typhoid fever, as their habits and cushioned feet are adapted to disseminating the typhoid germ. We had no deaths nor serious sickness after leaving Jacksonville, Fla., except one accidental drowning in Cuba. Our death rate during over a year's service was less than 2%, nearly all occurring within two months, and all in Florida. In Georgia they improved, in Cuba they looked like a regiment of athletes. Soldiers stagnate in camp, and should be on the move. Two weeks is long enough to occupy a camp, unless necessity demands it. Change of surroundings and being occupied is necessary.

Our camp in Cuba, four (4) miles out of Havana, near the coast, was ideal. Lime was plentiful and brought in by the wagon load every day. Kilns were situated near us. One would be reminded of a winter at home, when the tent flies were drawn back, disclosing lime generously strewn—resembling snow. Not only was the lime thrown in the sinks, but the ground everywhere in camp was entirely covered and the sink seats were scrubbed with a solution of crude carbolic acid and covered with tight-fitting lids, fly-proof. We had no flies, or sickness of consequence. I believe screens, lime and carbolic acid will drive the fly out of existence.

Water in Florida, Georgia and Cuba was all good in camp, piped from artesian wells or springs. In Havana the water supply is perfect, piped from Vento Springs, a wonderful piece of engineering by an American engineer. Vento Springs is of several mil-

lion gallons capacity, piped under the Almandaris river and six (6) miles into Havana. There are two pipes four feet in diameter. Have walked through the tunnel ten feet in diameter, under the river, with large water pipes on each side, supplying two hundred and fifty thousand (250,000) people in Havana and about one hundred thousand (100,000) soldiers without noticeable decrease. It is difficult to confine the soldier to piped or hydrant water, and induce them to realize its importance. They want well water, and neglect taking canteens while on passes or marches, and therein lies the trouble. The health of a regiment depends more on the discipline enforced by the colonel than the surgeon. Regular habits and system keep the soldier healthy. The commander and surgeon should be in perfect harmony. The surgeon's recommendations should be executed as they usually are, and I am glad my experience in that respect has been mostly satisfactory. As to general officers we were extremely fortunate, and too much could not be said of Gen. Lee as a commander and diplomat. For a corps commander should be a diplomat as well as a general, for he is an important tribunal, and has a big family with differences to compromise.

Gen. Lee is a brainy, jovial, big-hearted man, who decides quickly as positively, as was attested by his splendid management of the Seventh Cavalry corps, though he was ably supported by a staff selected from the flower of the regular army and citizen soldiery. Such men as Maj. Gen. Warren Kiefer, ex-Speaker of the House of Representatives, Gen. Lloyd Wheaton, now in the Phillipine Islands, Gen. Henry K. Douglas, a distinguished Confederate officer, Gen. "Foxy" Bancroft, the old Harvard stroke and coach, Gen. Hasbrauck, in the Phillipine Islands, Gen. (Ducky) Arnold, decorated by Congress Gen. Andy Burt, the character of the regular army, Curtis Guild, the Chauncy Depew of Boston, Gen. Barkley (on whose staff I had the honor to serve), a stickler for discipline and morality. I

mention these notables to show that the character and morals of the general officers was of a high order, and had a leavening effect in toning the rank and file with its physical sequence that redounds to the assistance of the surgeon.

The sick report book of the Fourth Illinois contains 1,717 entries, comprising the usual camp ailments and casualties too tedious to detail here, though I have a classification of them. Each patient's name, rank, age, diagnosis, date, number of times he has appeared on the sick report, disposition, etc., all indexed and can be readily referred to when besieged for certificates for pensions, and every military and civil physician will appreciate the convenience of copying a record.

Major Fowler, of New York, consulting surgeon of the corps and of the Third Division at Jacksonville, was in charge of the emergency hospital at Savannah, Ga., and performed a number of difficult operations, principally for appendicitis, hernia and varicocele, with signal success. The patients were usually returned to duty in a short time, and resulted in a great saving of revenue to the government.

Gov. Tanner and Adj. Gen. Reece provided every comfort possible under the circumstances, procuring the State fair buildings, which answered admirably for barracks. Too much could not be said of Lieut. Col. Geo. N. Kreider, post surgeon at Camp Tanner, Springfield, for his efforts in providing for the sick and securing the advantages of St. John's Hospital, splendidly equipped with modern operating room and complete throughout, with an excellent corps of nurses and attendants, whose religion is to care for the afflicted, where patients were taken when too sick to be treated at the post hospital, or to be operated upon.

Sketches of the lives of the veterans shown on the second page of this number will appear in the July issue. Other photographs of past presidents will appear from time to time during the year.

THE ILLINOIS STATE MEDICAL SOCIETY.

PROCEEDINGS OF THE FIFTIETH ANNUAL MEETING (SEMI-CENTENNIAL)

HELD AT
SPRINGFIELD, MAY 15, 16 AND 17, 1900.

FIRST DAY—MORNING SESSION.

The Association met in the Christian Church, and was called to order by the President, Dr. Harold N. Moyer, of Chicago, at 10 A. M.

Divine blessing was invoked by the Rev. Jay Elwood Lynn, of Springfield.

The President then introduced Lieutenant-Governor W. A. Northcott, who delivered the following

ADDRESS OF WELCOME.

Mr. President and Members of the Illinois State Medical Society: On behalf of the Governor of the State of Illinois, whose illness prevents him from welcoming you to the city of Springfield on this occasion, I have been invited to tender you a welcome to this city, not that I have any authority to tender welcomes to the city of Springfield, but on behalf of the Governor we give you this recognition.

I think the State Medical Society of Illinois is entitled to be considered a part of the State, as well as a part of the power and machinery of the State. You have a private as well as a public duty to perform, and your public relations make you semi-official. The doctor is not alone a man who earns his living by the practice of medicine, but he is a public official in a large measure and is so regarded in most countries of the world. Especially is this true in the older countries, such as Germany, etc. There the physician has a quasi-official capacity, and his official capacity is better put into effect in gatherings of State meetings than anywhere else.

Organization is the breath of life, of civilization, and by uniting in these meetings, memorializing the legislature, drafting bills, etc., you not only improve the practice of medicine, but do much towards checking pestilential diseases. You do a good deal towards the improvement and es-

tablishment of hospitals; you look after our humane institutions, and in this way your work in a public capacity is appreciated.

The Ancients had some knowledge of these things, they had some knowledge of anatomy, of drugs and herbs in a crude way, but it was only at the beginning of this century that we began to have schools of medicine, and the first act to regulate apothecaries was passed five months preceding the battle of Waterloo.

A little over fifty years ago it was said by a distinguished surgeon that the knife and pain went together. Since the introduction of anesthetics, very little pain is endured by the patient during a surgical operation. I am reminded of the first operation that was performed in the beginning of the world, namely, when the Lord put Adam into a deep sleep before he extracted the rib out of which he made Eve. The introduction of anesthesia has added materially to the success of your surgical work. Then, too, you have, I believe, what you call antiseptics, which are used to prevent blood poisoning. You have many aids to the practice of medicine and surgery, and among the latest of which is the X-ray. We have had a remarkable example of the use and benefit of the X-ray in this city. You will doubtless remember that Governor Tanner submitted to the X-ray and his trouble was located.

You, as physicians, have the best chance on earth to resort to quackery, because you have the patients in your own hands. Let us take the lawyer. He has got to plead his case before the public in competition with an adversary, and the people are to judge of his work. You, on the other hand, get your patients off to yourselves, you can either kill or cure them, and the people may not be aware of it. They do not know whether it was the act of God or the act of the physician that caused death.

In the early days of the Egyptians the priesthood practiced medicine entirely, and there was a mystery about it. They could use their little knowledge of medicine in a mysterious, semi-religious manner, but there was that lack of rationalism about it

which we observe today. The marked tendency of the age is toward the elevation of the common masses of the people. It means the elimination of quackery, not only in medicine, but in law, in public life. It means the elimination of the demagogue. Whenever we lift the people up, we lift all professions up. You know that the learned professions rise but little higher than the people. This was true in the days of the Ancients. In those days there were a few strong, many poor, and a few rich. But today it is the many.

Today you celebrate the Fiftieth Anniversary of your Society. Your wisdom and your influence have been felt in our State institutions, in our asylums, in our institutions for the deaf and dumb and blind, and in all institutions which have been established for the alleviation of suffering of mind and body. It is here that your influence has been felt. It is here that you deserve great praise for what you have done.

Illinois stands at the head of the column in regard to its medical supervision, in regard to the control of pestilential diseases, the examination of physicians. It exacts a high standard of requirements, and you are responsible in a large measure for the status of the medical profession. Your standards are gradually becoming higher.

When I was the State's attorney, we had one physician who was very fond of using medical terms when testifying on the witness stand. He would use medical terms in reply to questions with remarkable volubility. I said to him one day, "Doctor, why can't you use simple English for the benefit of the jury; they do not understand these technical terms?" After this remark he used language that the jurors could understand. I do not believe that you should clothe your ideas in mysticism by using technical terms, although I am aware that in some instances you cannot very well avoid their use. I believe the medical profession is drifting toward the use of simple English in testifying on the witness stand.

I have already detained you too long, and again I wish to extend to you a hearty welcome to the city of Springfield. (Ap.)

RESPONSE BY PRESIDENT MOYER.

Members of the Illinois State Medical Society: I am sure we are indebted to Lieutenant-Governor Northcott for his kind words of welcome, and I know that I express the sentiments of the Society when I say that in coming to Springfield to attend this, our fiftieth anniversary, our Jubilee session, we feel almost as if we were coming home. We feel a sense of gratefulness, and you know that gratitude has been defined to be a lively sense of favors hoped for. So in that sense we come to Springfield this time, grateful for the welcome that we are to receive and have received, and with a lively hope that we will be invited to return again soon. Springfield numbers among the most successful meetings of the State Society. Our meeting has begun under most auspicious circumstances, not the least of which is the admirable address of the Lieutenant-Governor to which we have just listened. I am mindful, as I stand in this place, surrounded by sacred walls, that one should utter nothing but the truth. It is the first time I have had an opportunity of this kind. (Laughter and applause.) The confidence of the State Medical Society was reposed in me on one occasion, so that I was allowed to act as toastmaster in the basement of a church, and I think the Society was encouraged on that occasion to advance me a little higher. But, as I say, we were obligated rather more strongly under the present circumstances than we have been in the past in the matter of truthful utterance, because of the surroundings, and I have no doubt we shall fully meet the requirements of the occasion. I had no hesitancy as to the invocation, but when the Lieutenant-Governor started his speech I was fearful. As he ended I was glad we were sustained in our efforts to keep up the traditions of such a place as this.

On behalf of the State Society, I thank you, Lieutenant-Governor Northcott, for your warm welcome and pleasant words of greeting. (Applause.)

Continued next month.

The Illinois Medical Journal

PUBLISHED MONTHLY.

Official Organ of the Illinois State Medical Society.

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All remittances for subscriptions should be sent to Dr. E. J. Brown, Treasurer, Decatur, Ill.

The Society does not assume responsibility for any statements or opinions published in this journal.

Entered at the Postoffice at Springfield, Ill., as second-class matter.

Springfield, Ill., June, 1900.

VOLUME FIFTY.

With the June issue, the Journal begins its fiftieth volume. Although Vol. 49 contains but eleven issues, forty-eight extra pages were found necessary during the year so that virtually twelve issues have been printed. Owing to the great amount of work preparatory to beginning the publication of the Journal, the Publication Committee were not able to put out the first issue until July, 1899. In order to begin the year aright the volumes hereafter will begin with the June number.

An index of Vol. 49 is sent out with this issue and the eleven issues beginning July 1st, 1899, and ending May 1st, 1900, should be bound as one volume.

THE JUBILEE MEETING.

The semi-centennial meeting of the Society held in Springfield was in every particular a grand success. The attendance was larger than ever before, a modest estimate placing the number at 450. That the scientific sessions were of superior merit was shown by the fact that the capacity of the place of meeting was frequently taxed. The discussions were many and full. The

general interest shown in the different departments was highly gratifying to the officers, and all without exception expressed themselves as being extremely pleased at the appreciation shown.

The Jubilee Feature of Wednesday evening proved a tremendous success. Dr. Hollister who organized this feature is to be congratulated upon the method adopted, and the details of its execution. Seated at the head of the table facing three hundred guests were the pioneers in the profession: Drs. Robert Boal, N. S. Davis, L. G. Thompson, J. T. Stewart, W. J. Chenoweth and J. H. Hollister. The responses to the toasts were happy and much of the ancient history of the Society was brought out, a full account of which will appear in the Transactions.

Never before was such interest exhibited in the business work of the Society. Many resolutions looking for an active increase in Society work and political influence seemed unanimous. Various committees looking to this end were appointed and the officers were urged to greater activity.

The preliminary meeting of Monday, the 14th, saved the Society many hours labor. It was unanimously agreed to continue this feature annually. The spirit of organization was manifested by pledges made that will result in a material increase of membership.

The powers of the Judicial Council were increased by referring to it with power to act, the question of incorporating the Society under the State law. Also of presenting to the appointing powers a list of eligible candidates for the various medico-political offices.

The committee of arrangements is to be commended for securing such a high class of exhibitors.

The exhibition of medical preparations,

foods and surgical instruments were of a superior order. After all the expenses of the meeting were paid, a very satisfactory balance was turned into the treasury. W.

GUARD THE PORTALS.

Now that unusual activity has commenced in the formation of new medical societies in the State it becomes necessary to urge the profession to scrutinize carefully the character of persons who apply for admission. Persons of questionable antecedents will be seeking support by allying themselves in societies with those of good standing in the community. But in our organizations as in all others one bad member can do more to bring discredit on the society than two upright members can counteract. Good material will be kept out and soon disintegration and finally disorganization of the society will result. We are led to these remarks by certain facts which have just been brought to our notice by the Secretary of the State Board of Health. *Dramatis Personae* are two illegal practitioners, two legal practitioners acting as complaining witnesses, the Secretary of a newly organized county society and the Secretary of the State Board of Health.

In brief the drama thus turns: The legal practitioners complain to the Board that to "the disgrace and insult of the medical fraternity," M. and M., who do not possess diplomas and have not been licensed to practice medicine in Illinois, have been practicing since 1897. Thereupon the Secretary applied to the Secretary of the county society asking the co-operation of the said organization in this matter and the name of a good attorney to take the case into court. The county Secretary replied, giving name of attorney and promising the aid of the society. An authorization was thereupon is-

sued to the State's attorney to prosecute the illegal practitioners.

He so informed the Secretary of the county organization and was dumfounded when he received the following letter:

May 24, 1900.

Dr. J. A. Egan, Springfield, Ill.

My Dear Doctor—Your communication received, and I must say I am somewhat surprised to learn that Drs. M. and M. are the ones that are not complying with the law. I had a talk with Dr. M. a short time ago and he told me he would register at once, and as they are both, as I understand it, graduates of a regular school of medicine, and both have their applications in to become members of our county society, this is rather sudden to me. Now Doctor, will you please inform me as to how they are violating the act? As they are well known to our society, and are very anxious to unite with us, it seems to me they certainly are misrepresented in this matter. Therefore, the reason I write you for information, and I know they certainly wouldn't have their desire to join our society if they didn't expect to comply with our laws. Now Doctor, if you will kindly give me the desired information as to the laws they are not adhering to, I believe this society can and will make it right. And one thing sure, you will and can always have the co-operation of this society in enforcing the laws governing the legal practice of medicine in this State as far as is in our power. Hoping we may have a better understanding of this matter, and to hear from you very soon, I am fraternally yours,

To this the Secretary of the State Board of Health replied:

Springfield, May 26, 1900.

Dear Doctor:

I was indeed surprised to note the contents of your communication of May 21st. That your society has entertained the application of two well known violators of the law, and is apparently ignorant of the fact

that neither possesses a certificate from the Illinois State Board of Health, seems incredible.

For your information I will state that the persons in question, M. & M., have, according to the records of this office, been violating the Medical Practice Act in for nearly four years. Complaints were made against them in 1896. They were then warned to discontinue practice under penalty of prosecution. The records do not show that a reply was received from them or that any action was taken.

Last March complaints were again made and then the matter first came to my attention. I wrote you on March 27th in relation to the matter. A copy of the communication is herewith enclosed. I also sent warning notices to the M's. No reply was received from Mrs. M., but from her husband came a statement that he was not practicing medicine, and did not want to. This I have been assured is untrue. I might say that Mrs. M. made application for a certificate claiming to have a diploma from the College of Physicians and Surgeons of Keokuk, Iowa, issued in 1877. She has not yet appeared for examination but still continues to practice. Learning last week that both were practicing in defiance of the law, I issued an authorization for their prosecution to the State's attorney.

You ask what laws they are violating. I hardly understand your question, but for your information I will say that they were violating the act to Regulate the Practice of Medicine in Illinois in force July 1st, 1887, under the provisions of which you and I are licensed, and they are now violating the provisions of the act now in force.

Their desire to join your society may not as you imagine, evidence a wish to comply with the laws of the State. The fact is, the contrary is the case. They made application for membership while daily violating the law. They have shown no desire to comply with the law. Mr. M. claims to be a graduate of the Keokuk Medical

College of 1867. Mrs. M. of 1897. If this be true both could have registered on presentation of their diplomas at any time up to midnight June 30th, 1899. Why did they not?

I sincerely trust that your County Medical Society will not consider the application of any more candidates without first ascertaining whether they are licensed physicians. It might be well also to ascertain if they be physicians.

I thank you on behalf of the Board for your offer of co-operation in the enforcement of the Medical Practice Act, and in response will say, that this Board will be pleased to co-operate with the _____ County Medical Society in an endeavor to put an end to all illegal practice in the county.

Very truly yours,
J. A. Egan, M. D.,
Secretary.

A careful perusal of the foregoing will show,

1. The difficulties which beset the enforcement of the act regulating the practice of medicine in the State of Illinois.

2. The unjust criticism which is wrongfully heaped on the State Board of Health in cases in which an honest endeavor has been made to prosecute offenders.

3. The apparent innocence of officers of county societies in permitting themselves to be duped by designing persons.

4. The use which illegal practitioners will make of county societies to give themselves standing in the community and, finally, all this goes to prove the necessity of our text—Guard the Portals. K.

Dr. Frank C. Green has been elected lieutenant-commander of the Illinois naval militia.

One of the cottages of the insane asylum at Kankakee has been remodeled for the treatment of nervous diseases among the female patients.

County and District Societies.

CRAWFORD COUNTY MEDICAL SOCIETY

Met in the office of Drs. Firebaugh and Barlow, Robinson, Ill., Thursday, May 3d, Dr. C. E. Price, presided. The following members were present: Drs. C. E. Price, Leroy Newlin, John Weir, T. N. Rafferty, H. N. Rafferty, W. C. Hayhurst, S. D. Meserye, J. B. Cato, L. J. Weir, C. Barlow and I. L. Firebaugh.

The minutes of the previous meeting were read and approved. Dr. H. N. Rafferty was unanimously elected a member.

Dr. Cooley's paper on "Incontinence of Urine in Children" was read by Dr. T. N. Rafferty. Interesting discussion followed.

Dr. Cato read an interesting paper on "Valvular Diseases of the Heart." It was discussed by Drs. L. J. Weir, I. L. Firebaugh, T. N. Rafferty, C. E. Price and H. N. Rafferty. Dr. Cato closed the discussion.

Dr. C. Barlow read a well prepared paper on "The Passing of Alcohol in Practice." An enthusiastic discussion ensued, participated in by all present. A majority favored the use of alcohol in definitely indicated cases only.

Drs. Barlow and Price were elected delegates to the State Society. Dr. T. N. Rafferty was elected delegate to the American Medical Association.

Adjourned to second Thursday in July.

John Weir, Reporter.

THE ADAMS COUNTY MEDICAL SOCIETY

Met in regular session at Chamber of Commerce, May 14th. President Tull in the chair. Members present: Drs. Tull, Robbins, Brenner, Fletcher, Wilson, Landon, Knapp, Montgomery, Reticker, Christie, Jr., Burne, Gilliland, Center, Hart, Koch, Germann, Nickerson and W. W. Williams.

Minutes of meeting of April 9th read and approved with the exception of the statement by Dr. Center in regard to Emphysema.

President Dr. F. E. Tull made a brief address, congratulating the Society upon its excellent work during the year.

Invitation from Quincy Water Works to visit the filtering plant was read and accepted, and the secretary instructed to notify Mr. Gwinn the Society would meet at the office of the company and inspect their plant.

Communication from Dr. E. W. Weis was read and placed on file.

Application of Dr. G. Schmidt for membership in Society was received and sent to censors.

Dr. D. M. Knapp, of Mendon, was elected a member, the censors having returned a favorable report. Dr. Amos D. Bates, of Camp Point, was also elected a member. Dr. Knapp signed constitution and by-laws. The following is the report of Dr. Nickerson, Treasurer: Cash received of W. W. Williams, Secretary, \$50.00; paid out \$27.21; amount on hand \$22.79.

Report of W. W. Williams, Secretary: During the year we held eleven meetings. An increase of twelve members during year. Amount received and paid over to Dr. Nickerson, Treasurer, \$50.00. Amount on hand \$22.79. The banquet fund of \$174.00 was collected and bills paid by banquet committee, separate and apart from the Medical Society.

This being the annual meeting the Society proceeded to the election of officers for the ensuing year, with results as follows:

President, Dr. Otis Johnson, Quincy, Ill.

First Vice President, Dr. W. W. Williams, Quincy, Ill.

Second Vice President, Dr. D. M. Landon, Burton, Ill.

Secretary, Dr. C. D. Center, Quincy, Ill.

Treasurer, Dr. S. H. A. Nickerson, Quincy.

Censors, Drs. Jos. Robbins and H. P. Beirne, Quincy, and W. E. Gilliland, Coatsburg.

It was moved and seconded that President and Secretary issue credentials to members in good standing who desire to attend the National and State Medical So-

cieties as delegates. Carried. Certificates were issued to Drs. D. M. Landon, H. Hart, C. D. Center, L. H. A. Nickerson, H. P. Beirne, J. K. Retticker, M. K. German, to attend the State Society at Springfield. It was moved and seconded to place the name of Dr. Beirne on the nominating committee at Springfield, with instructions to vote for Peoria as next place of meeting.

A motion was made giving a page to the report as given by the Quincy Journal of our fiftieth anniversary and banquet held in this city at Newcomb Hotel, March 28, 1900.

The Secretary, W. W. Williams, expressed his thanks to the Society for the courtesy shown him during his services as Secretary, and thanked them further for the honor shown him that day.

The Treasurer, Dr. Nickerson, also thanked the members for the honors bestowed upon him.

On motion of Dr. Christie a vote of thanks was tendered the officers for efficient services. Cash received \$22.00.

Adjourned.

W. W. Williams, Reporter..

DOUGLAS COUNTY MEDICAL SOCIETY.

The Douglas County Medical Society met in regular session in the K. of P. hall, with the following physicians present: Drs. J. L. Reat, W. T. Pullian, B. T. McClain, B. H. Devors, W. Brenton, W. F. Benefiel, M. E. Nichols, H. S. Smith, J. H. Hoffmann, Z. E. Matheny, J. A. Pinckard, J. W. Dobson and W. E. Rice.

The meeting was called to order by the President, Dr. McClain. Minutes of the previous meeting was read and approved. Dr. J. L. Reat then read the following obituary on the death of Dr. F. T. Spees, which was adopted as follows:

Mr. President: Since our last meeting this society has lost one of its oldest and most esteemed members, Dr. F. T. Spees, who died at his home in this city, April 15th, 1900, at the advanced age of seventy-six years, three months and fourteen days. Frederick T. Spees was born at Felicity, Clermont county, Ohio, Jan. 1st, 1824.

When he was eighteen years old he began the study of medicine in his native town, and entered the active practice of his profession in Highland county, Ohio, in 1850, then moved to Iowa for a time, coming to Tuscola in 1867, where he prosecuted his life work with an energy equaled by few and scarcely surpassed by any.

Now we come to pay a tribute of respect to the memory of one who has gone out from amongst us, with whom we had mingled and often met and consulted.

We knew the doctor, not alone as a faithful and tireless physician, but as a prominent citizen of our town and county, who had held important official positions of honor and trust, who had been a member of our medical societies, and who in all the walks of life, had been recognized as a Christian gentleman.

Appreciating the fact that the right remedy for today may be the wrong one for tomorrow, he proved himself self-sacrificing and true to those who intrusted their lives in his care, by bidding defiance to storms and darkness, going forth to administer to the sick and suffering at all hours, even when pecuniary considerations were remote contingencies and when younger men hesitated to undergo the hardships, he appeared to willingly assume, notwithstanding his age.

We all remember the doctor's quick, elastic step and erect frame, carrying its weight of more than seventy-six years with apparent ease, unmindful of the significant fact that youth had departed and that "the days of our years are three score and ten years; and, if by reason of strength they be four score years, yet is their strength, labor and sorrow" for "a man's heart deviseth his way, but the Lord directeth his step."

While the active professional life of Dr. Spees was twice that allotted to the average practitioner of medicine, doubtless he realized, as we all have, that he had not accomplished all that he had wished, and that he did not have all that he had hoped to possess; for wishing and having have evermore been widely sundered, but if faithful

to duties call, may we not hope to meet in that better land where their meaning is the same. Yes, "it may be when all is done, we shall meet together in some good world, where to wish and to have are one."

The Secretary was instructed to furnish the editor of the State Journal a copy of the minutes and papers of each regular meeting of the Society. Nominations and election of officers was then taken up as follows, to serve for the coming year:

Dr. M. E. Nichols, President.

Dr. W. Brenton, Vice President.

Dr. W. E. Rice, Secretary.

Dr. J. L. Reat, Treasurer.

Drs. Pullian, McClain and Reat were elected delegates to the State Society.

On account of sickness the regular essayist was absent, there being no further business, reports of cases were then in order, and several were reported by Drs. Devors of Hume, Dobson of Arthur, Rice and Pullian of Tuscola.

Dr. J. A. Hoffman of Pesotum, was elected an honorary member and Dr. Smith of Tuscola, an active member. There being no more cases to report the Society adjourned to meet in this city the first Thursday in August of the present year.

W. E. Rice, M. D., Reporter.

THE LA SALLE COUNTY MEDICAL SOCIETY

convened at the Court house in the city of Ottawa, Tuesday, April 25th, at 10 o'clock A. M., with the Vice President, Dr. J. F. Dicus, of Streator, in the chair. There were twenty-five members present.

Dr. J. S. Conway, Streator, read a paper entitled "Strychnia." This paper dwelt particularly upon the action of strychnia for the cure of dipsomania. It is supposed to be in the main, an expose or a partial expose of the Keeley method of cure. The observations contained herein were based upon the application of this remedy in three hundred cases by the essayist. He makes some rather remarkable statements, the principal one of which being that strychnia nitrate is the only remedy that is needed for the absolute cure of dipsomania, occasionally supplemented, however, by other

remedies such as apomorphia, etc., which however, should be rarely used and only in extreme necessity. Another fact he brought out was that the dose should be very large. No less than 1/20th of a grain should be administered hypodermatically four times daily. He holds that by this means that there is an absolute cure of fully 75% of all cases. Of the remaining 25% he is of the opinion that there is no desire for cure, that the degeneracy has gone on so far that there is absolutely no moral force left and therefore no assistance can be given by the patient. While he believes that this remedy is the absolute curing agent, he is of the opinion that environment in special cases is a powerful adjunct for the maintenance of the cure.

This paper was not discussed in the ordinary way, but the doctor submitted to questions that were asked him by various members who desired to bring out fully everything pertaining to this interesting subject. These answers illustrated the fact that any physician simply with the nitrate of strychnia, and a hypodermic syringe can cure the vast majority of cases of dipsomania. The doctor brought out in an interesting manner one peculiar fact which should be noted by those who will adopt this method of treatment and that is, that after a few doses of this medication the taste for liquor is changed in such a way that however smooth and oily the best spirits will have a burning pungent taste which indicates a toning of the nervous system to such a degree of return to normal condition that the taste simulates that of the new beginner.

Dr. John Bergeson, Ottawa, read a paper on "Post-Pharyngeal Adenoids." This paper will appear in full in these columns in the future and it will be only necessary to speak of material points, 1st, the absolute necessity for early surgical interference and, 2nd, operating in the upright posture. This paper elicited considerable discussion concerning the remote effects of adenoids if left undisturbed, and the giving of an anesthetic to a patient who occupies an upright position. It was made clear

that the anesthesia, if chloroform is used, should be given a patient of course while lying down and held by the assistant until the operation is complete. It usually occupies but an instant of time.

Dr. A. F. Lemke, Chicago, read a paper on the "Cure for Tuberculosis" by the nitrogen gas pleural injection method. This paper was very exhaustive and the injection method was illustrated first, as to its curing properties by the exhibition of several patients who had undoubted pulmonary tuberculosis and were now in the fair way to recovery, and by the exhibition of the method of injection upon one of these patients, showing the technique of procedure in its entirety. The essayist went into the history of this method of cure narrating fully everything pertaining to this subject. An interesting and long-continued discussion followed.

Dr. Wm. A. Pike, Ottawa, Health Officer, read a paper on "The Illinois River as a Drainage Canal," giving comparative analyses of the waters of the river before and after the turning in of the sewage from Chicago.

Resolutions were adopted sympathizing with Dr. E. P. Cook, Sr., Mendota, and expressing sincere regrets at his absence. This is the first meeting in the history of the La Salle County Medical Society that Dr. Cook was unable to attend (with one exception), his familiar form with his ever kindly and genial face was sadly missed.

Resolutions of sympathy were also adopted expressing regrets at the absence and long continued illness of Dr. Joseph Stout, the only living member of the Ottawa Medico-Chirurgical Society, which Society in 1849 issued the call for the convention of the State Society.

The county society was entertained at dinner at the Clifton Hotel by the Ottawa City Medical Society. The following were elected officers: President, Dr. R. W. Bower, Sheridan; Vice President, Dr. E. Jameson, Utica; Secretary and Treasurer, Dr. E. H. Butterfield, Ottawa. Drs. A. J. Roberts and H. Fehr were elected members.

E. H. Butterfield, Sec'y.

PRELIMINARY MEETING OF MEMBERS OF THE ILLINOIS STATE MEDICAL SOCIETY.

At a preliminary meeting, held May 14, which was called to discuss and devise plans for better organization, Dr. E. Fletcher Ingals was elected chairman.

The following propositions were discussed:

1. Methods for enforcing and improving the medical practice act.

After a free and thorough discussion of this proposition, a motion was made and carried that the matter of amendments to the present medical practice act be left to the discretion of the Committee on Medical Legislation, and that this be so recommended to the State Society.

2. Methods for adding to membership of the State Medical Society, increasing the efficiency of local societies, and adding to the number of local societies.

Dr. A. C. Corr moved that the meeting recommend to the State Society that the Committee on Publication coöperate, as far as possible, with the Committee on Medical Societies to the extent of furnishing them copies of the Journal. Carried.

Dr. J. W. Pettit moved that a committee of three be appointed to embody the points that were brought out in the discussion, and bring the salient features before the State Society. Carried.

The chairman appointed on this committee Drs. C. W. Hall, W. F. Grinstead and Carl E. Black.

3. Methods for increasing the interest in the State Medical Society; the advisability of appointing a committee on the good of the order to meet annually on the afternoon of the day preceding the first day's session of the State Society.

Dr. Denslow Lewis moved that a committee of three be appointed by the President of the State Medical Society to meet in the afternoon of the day preceding each State meeting; that all members of the Society

be invited to meet this committee, and that at this preliminary meeting questions of material interest to the profession shall be discussed. Carried.

4. Methods for securing the appointment of representative medical men on the State Board of Health.

After considerable discussion of this proposition, Dr. Denslow Lewis moved that each Society in the State be encouraged to appoint a good government committee of its members, with whom the Committee on Medical Legislation of the State Medical Society can confer. Carried.

Dr. C. W. Hall moved that each district society be requested to nominate one member as a nominee for the position of member of the State Board of Health, Cook County to name four, each district society to name one, this to be the list from which the Governor can select five appointees to represent the regular medical profession. Seconded.

Dr. J. W. Pettit moved to amend that the judicial council of the State Society have charge of the matter of recommending members for positions on the State Board of Health. Seconded.

Dr. Edward Bowe moved, as an amendment to the amendment, that the members so recommended must be in good standing in their own local societies, and that the names be submitted to the Board of Censors or Judicial Council of their own local societies and be endorsed by them before submitting their names to the Judicial Council of the State Society.

The original motion, as amended, was carried.

5. Methods for coöperation with the State Board of Health, and other constituted health officials, in the prevention and limitation of the spread of contagious diseases.

After considerable discussion, no action was taken by the meeting on this proposition.

Adjourned.

Correspondence.

Chicago, May 26, 1900.

Dr. Kreider, President Ill. State Medical Society, Springfield, Ill.:

Dear Doctor—I beg to inform you that it is the desire of the German Medical Society of Chicago (Deutsche Medicinische Gesellschaft von Chicago, Ill.) to become a member of the Ill. State Medical Society.

The German Medical Society meets every second and fourth Thursday from October until June inclusive, at Hotel Bismarck, 180 E. Randolph St.

President: Dr. Maximilian Herzog, 174 E. Chicago ave.

Yours very respectfully,
Dr. Adolf Decker, Sec'y.

To the Members:

As committeeman having in charge the European excursion to the International Medical Congress, I am pleased to say that I have made a contract with the Wabash in connection with the West Shore railroad for the trip from Chicago to New York.

This trip will include a day at Niagara Falls and the trip from Albany to New York on the magnificent Hudson river day-line steamer, giving one the opportunity to view two of the greatest natural attractions in this country east of the Mississippi river—a fitting prelude to a tour in Europe.

The total expense of this trip, including railroad fare, sleeper, hotel accommodations, etc., will be \$18.00, or \$1.50 less than the standard rate for fare alone, but in order to get this concession it is necessary to have a party of one hundred. Therefore, all those wishing to avail themselves of this delightful trip may do so, whether they contemplate a trip to Europe or not. Accommodations will be strictly first-class in every respect, including a solid vestibule train of Pullman cars, excellent meals en route, and special attention at Niagara Falls, etc.

Those wishing to avail themselves of this splendid opportunity should write to me at once.

J. W. Pettit.

Marriages, Deaths, Change of Address

MARRIAGES.

- Dr. H. R. Lovellette and Miss Stella Schafer, of Kingsburg, May 1, 1900.
 Dr. C. E. Gilliat and Miss Buella Price, of Allendale, March 14, 1900.
 Dr. W. K. Saling and Miss Angie Solliday, of Stonington, May 2, 1900.

DEATHS.

(Furnished by State Board of Health.)

- Baker, Leander H., at Oak Park, May 4.
 Bolles, Edgar, at Macomb, May 14.
 Demaree, Thos. E., at Danville, April 17.
 Gibson, J. G., at Chicago, May 24.
 Huse, Edward C., at Rockford, May 14.
 Harris, Jos. V., at Canton, May 7.
 Jenks, Daniel S., at Plano, May 12.
 Leffingwell, J. B., at Oakland, Cal.
 Pratt, Leorand, at San Jose, Cal.
 Plummer, S. C., Sr., at Rock Island, April 29.
 Rutherford, Hiram, at Oakland, April 30.
 Spens, Conrad, at Joliet, April 22.
 Vincent, Edw. E., at Detroit, Mich., May 4.

CHANGES OF ADDRESS.

(Furnished by State Board of Health.)

CHANGES IN CHICAGO.

- Binkley, J. T., to Windemere Hotel.
 Cooper, Anna R., 3121 Dearborn to 2970 State.
 Chandler, F. E., 1236 to 1318 Noble ave.
 Detwiler, D. W., 2099 Harv. to 1800 Wabash ave.
 Duncan, W. E., 603 W. 63d to 6058 Kimbark ave.
 Frank, I., 1929 Deeming Pl. to M. Reece Hosp.
 Griffin, L. W., Tacoma Bldg. to Bay State Bldg.
 Howell, W. G., 529 W. 60th Pl. to 12 E. Harrison.
 Hendricks, W. S., 915 to 927 W. North ave.
 Huizinga, J. G., 9154 Com. ave. to 100 State st.
 Hillebrand, H. J., 363 Armitage to 1059 W. Full'n.
 Hartley, J. D., 6422 Stoney Is. to 7840 Em'd av.
 Hawley, J. E. R., 3515 Grand Bl. to 3421 S. P'k av.
 Hollenbeck, F. D., 313 E. Chi. av. to 205 N. State.
 Jacquith, W. A., 2522 Calumet to 3841 Rhodes av.
 Klein, J., St. Elizabeth Hosp. to 4800 N. Clark st.
 Lewin, S., 503 W. 63d st. to 6500 Harvard st.
 Lyon, E. A., 4658 State st. to 534 E. 47th st.
 McClure, Chas. E., 1256 to 1106 Lawndale ave.
 Mahoney, G. W., 34 Wash. st. to 100 State st.
 Miller, R. E., 5858 State to 5859 Wentworth ave.
 Nance, W. O., 5213 Hibbard ave. to 100 State st.
 Patton, J. A., 2082 Congress to 2271 Harrison st.
 Piper, E. D., 2116 Monroe st. to 2141 Jackson Bl.
 Patten, H. J., 1735 Armitage to 1093 Tripp ave.
 Rittenhouse, H. H., 57th to Marshall Field Bldg.
 Rohrabough, E. E., 4308 Langley to 109 42d Pl.
 Stevenson, A. F., Jr., Pres. Hosp. to 378 LaSalle.
 Sweet, Albert A., 4839 to 4785 N. Clark st.
 Smith, E. A., 1928 Archer ave. to 1910 State st.
 Thomas, H. M., 4414 Ellis to Marshall Field Bld.
 Topinka, J. T., 2534 Wentworth to 2602 Ind. ave.
 Wood, Glen, 903 W. Monroe st. to 348 E. 55th st.
 Wadhams, F. E., 3329 Ind. av. to 3433 S. Park av.
 Wilson, J. F., 144 65th st. to 6424 Sangamon st.

CHANGES FROM CHICAGO.

- Beach, James C., to Columbus, O.
 Edwards, John M., to St. Louis, Mo.
 Waiss, A. S., 2691 to 2516 N. Hermitage ave.
 Eshbaugh, A. S., to Kankakee.

- Frizelle, Clifton H., to Pontiac.
 Gibbons, F. E., to Mattoon, Wis.
 Lassague, Victor F., to Eureka Springs, Ark.
 Lane, Miron E., to Canton.
 Morris, John L., to Columbus, Ind.
 Mengle, S. G., to LaSalle.
 Pratt, E. H., to Freeport.
 Walker, Chas. A., to Rockford.
 Wheaton, Clarence L., to Colorado.

CHANGES TO CHICAGO.

- Brownstein, S., Louisville, Ky., to 338 W. 12th st.
 Clark, M. T., Frankfort Sta. to 1926 Wabash av.
 Caldwell, Thos. J., Cylon, Wis., to 4658 State st.
 Cheney, Wm. W., Washington to 1254 Mich ave.
 Cannon, Jos., Des Moines to 40 Security Bldg.
 Milbee, H. H., Roberts, Wis., to 4658 State st.
 Pettijohn, Elmore S., Alma, Mich., to Stuart Bldg.
 Russell, F. H., Claytonville, to Pres. Hosp.
 Sidler, E. M., Milwaukee, Wis., to 46 N. State st.

CHANGES FROM ILLINOIS.

- Allen, Archibald, Huntsville to Missouri.
 Freeland, P. L., Nokomis to Aurora, Mo.
 Jamieson, T. H., Enfield to Wellington, Kan.
 Kelly, Frank E., LaMoille to Aurora, Neb.
 Mock, Edw. A., Cambridge to Houston, Texas.
 Wessel, Wm. C., Burksville to Warrenton, Mo.

CHANGES TO ILLINOIS.

- Balcke, Wm. A., to Cropsy.
 Beidler, J. H., to Elkhart.
 Cruzen, J. L., Oskaloosa, Ia., to Seaton.
 Culp, E. E., St. Louis, Mo., to Caseyville.
 Doutrick, Harry, to Grand View.
 Erwin, Oliver P., to Medora.
 Lane, J. H., to Medora.
 Little, Robt. M., St. Louis, Mo., to Modesta.
 Mitchell, Frank W., to Adeline.
 McKee, Jas. W., to Blue Island.
 Nichol, Ella R., to Monmouth.
 Sintzel, Louis J., St. Louis, Mo., to Niles Center.
 Smith, Harvey S., St. Louis, Mo., to Tuscola.

CHANGES IN ILLINOIS.

- Arendale, D. H., Spring Garden to Mt. Vernon.
 Bennett, Stephen B., Fairview to Galesburg.
 Brantley, John H., Carbondale to Makanda.
 Bowers, W. C., LaPlace to Decatur.
 Barnes, A. H., Cropsey to Girard.
 Barton, L. E., Seccor to Deer Creek.
 Cooley, Elmer, Pilot to Newton.
 Edmonson, Geo. S., Maroa to Clinton.
 Fischer, F. X., Belleville to Highland.
 Hession, Patrick J., Hamilton to Canton.
 Henry, Gilbert H., Summer land to El Dara.
 Horner, C. P., Paxton to Tampico.
 Kinkead, A. G., Greenfield to Carlinville.
 Levick, A. T., Steeleville to Mt. Vernon.
 McComas, G. U., Burton to New Canton.
 Mandeville, John D., Philo to Champaign.
 Macauley, Thos. E., East Plata to Gilberts.
 O'Hara, Fred S., Springfield to Buffalo.
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 Plummer, J. L., Peoria to Trivoli.
 Shore, John D., Ramsey to Metcalf.
 Smith, Cyrus H., Farmington to Ottawa.
 Scott, Chas. E., Winslow to Princeton.
 Scott, Freeman J., Oakland to Rock Falls.
 Thompson, Theodore, Shelbyville to Morrisville.
 Taylor, Reynold C., School to Mill Shoals.
 Westerland, J. E., Orion to Cambridge.
 Wolfe, J. M., Arcadia to Kasbeer.

ILLINOIS Medical Journal

The Official Organ
of the
State Medical Society



A Monthly Bulletin
Edited by the
Publication Committee

Printed by
THE ILLINOIS STATE JOURNAL COMPANY.

Entered in the Springfield Postoffice as Second-Class Matter.

Volume L.
New Series, Vol. II. }
Number 2.

Springfield, Ill., July, 1900.

{ Subscription, \$3 a Year.
Single Copies, 25 Cents.

TABLE OF CONTENTS.

ORIGINAL ARTICLES.

Address of Section Three—A. C. Cotton, M. D., Chicago.....	51
The Management of Impacted Cases— Henry F. Lewis, M. D., Chicago.....	57
The Mutilating Operations in Obstetrics— C. S. Bacon, M. D., Chicago.....	63

EDITORIALS.

Typhoid Fever During the Recent Spanish- American War.....	80
The Habit of Case Taking....	81

TRANSACTIONS.

Transactions of 50th Annual Meeting.....	68-79
Announcement of Legislative Committee..	82
State Board of Health Items.....	84

COUNTY AND DISTRICT SOCIETIES.

The Medical and Surgical Society of West- ern Illinois.....	85
St. Clair County Medical Society.....	85
Chicago Academy of Medicine.....	85
Clay County Medical Society.....	86
Peoria City Medical Society	86
Winnebago County Medical Society.....	86
Decatur Medical Society.....	86
McLean County Medical Society.....	87
Champaign County Medical Society.....	87
Adams County Medical Society.....	88
Tri County Medical Society.....	88
Brainerd District Medical Society.....	89
Sangamon County Medical Society.....	90
State Items.....	93
Marriages, Deaths, Changes of Address....	93-94
Calendar of Medical Societies.....	95-96



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Will be held in **Peoria**

May 21, 22 and 23, 1901.

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The Illinois Medical Journal.

The Official Organ of The Illinois State Medical Society.

VOL. I.
New Series, Vol. II. }
No. 2.

Springfield, Ill., July, 1900.

{ SUBSCRIPTION
\$3.00 A YEAR.

JEREMIAH XXXI-15.*

BY A. C. COTTON, A. M., M. D., CHICAGO.

If ancient mythology is to be credited there occurred annually in the city of Athens a ceremony the recital of which fills the modern mind with horror and commiseration. The departure of the barge freighted with the choicest flower of Grecian youths and maidens for the Isle of Crete, the city's annual tribute to the voracious Minotaur of King Minos.

That the Greeks were indifferent to this horrible sacrifice seems preposterous and the dullest imagination can picture the scenes of heart breaking grief as the fateful boat swept out of the bay bearing the loved forms and cherished hopes of the choicest homes of that proud and cultured city.

That this regularly recurrent horror was endured is only an evidence of the benumbing influence of a custom sanctioned by ages of delusion. That years of suffering were necessary for the evolution of a Theseus from the ranks of that brave people is the wonder of the modern reader, and hard indeed it is to reconcile their pusillanimous subservience to this horrible humiliation with the Homeric picture of the heroic Greek.

Before censuring the mythological Peloponesian in our modern judicial minds let us for a moment hold up the mirror to our 19th Century civilization. Is it possible that even today the mere frequency of the recurrence of a great calamity inures the mind and benumbs the faculties to the very horror of it? Do we not still pay the tribute to King Minos? Have we a modern Minotaur?

About 260 B. C., according to Griffith, Demetrius of Apamia wrote "De morbis

puerorum." In 1472 A. D. Bagellardus wrote "De Aegritudinibus et remediis infantum," and in the following year appeared the first printed book upon diseases of children. "Ein vast nützlich regiment der junger Kinder" by Metlinger. The first work of this kind in England was by Payn in 1596, entitled "The Regiment of Life; whereunto is added a book of children." Pemel wrote in 1653 "De Morbis puerorum," and some time before, Harris published "De Morbis Acutis Infantum." Sydenham, in a letter to Harris said: "Without flattery you are the first man I ever envied; and it is my belief that your little book will be more useful to mankind than all I have written."

In modern times the number of European writers on pediatric subjects has steadily increased. In our own country the first medical book devoted especially to children was written by a lay-woman in 1790, and called "The Maternal Physician." The first books on Pediatrics by American physicians appeared simultaneously in 1825 from Dr. George Logan, and the well known Dr. Wm. P. Dewees.

The more recent works of Condie, Eberle, Meigs and Pepper, Smith, Jacobi, Starr, Rotch, Holt and Keating rank among the foremost of the worlds pediatric productions. Throughout all this array of literature from the earliest to the very latest the attention of the reader is directed with ever increasing earnestness to the high death rate during the early periods of life.

It is recognized by all that the mortality of infancy and childhood is enormous. More than two-fifths of the whole number of deaths in England and Wales, during the decade of 1881-1890, occurred in children under ten years of age. The greater part of these were under five years, and still again, by far the greater number of the last were under one year.

*Read at the Fiftieth Annual Meeting of the Illinois State Medical Society, Springfield, May 15, 1900.

Recent studies by Eross of 16 large European cities including a review of a million and a half of children, have shown that 10% of infants born alive die during the first four weeks of life.

Independent work in New York along the same line brought very similar results, viz: a proportion of one death to every 10.8 births. This may be a startling fact to those who have not given the subject due consideration.

The lowest average infantile death rate of any European country is found in Norway where we may expect to find of one thousand births, nine hundred infants still alive at the end of one year. Only in the most favored portions of other countries, namely, the rural districts, are nine infants out of 10 able to keep up the struggle for life. In the larger cities we find the mortality during the first year ranging (according to the surroundings) from 120 to more than 700 in 1,000 births.

To even the dullest mind these bare figures should furnish outlines of tragedies too terrible to be endured. We are still under tribute to Minos. The Minotaur demands his victims with a voracity unknown to Grecian Mythology.

Of the large number of deaths during the first four weeks of life Eross found 56% attributed to congenital debility. Disorders of nutrition are given as the cause of more than half of the fatalities of the first year.

Without enlarging upon statistics for which the time allotted is altogether too limited the writer would call attention to the fact that the great burden of early life is due to disorders diathetic and diatetic. These are the great predisposing causes without which the accidental or determining causes would be comparatively inoperative.

The "*Locus minoris resistentiæ*" and the *Vis Medicatrix Naturæ*, far from being empty terms of formulated ignorance have become pregnant with new meaning under the fecundation of our recent knowledge of etiology and pathology.

By far the greater number of causes

which contribute to the mortality in early life, whether from acute or chronic affections, auto-intoxication or malhygiene, are now regarded as preventable. In this category are found pertussis, measles, diphtheria, scarlatina, chicken-pox, smallpox, gastro-enteritis, cholera infantum, influenza, broncho-pneumonia, otitis media, tuberculosis, meningitis, adenoids, marasmus, rickets and scurvy and some others, depending upon the nosology of the reporter.

Another group of disorders including asphyxia, convulsions and rheumatism are believed to be largely preventable, while the limited number only of congenital malformations and hæmorrhagic disorders of the new-born must be, for our restricted knowledge of their etiology, still classed as non-preventable.

This startling arraignment, while it does not lessen the importance of curative treatment, emphasizes the growing recognition of the demand for prophylaxis. Preventive medicine has become the quest of the hour.

The relation of the physician to over 90% of the disorders of infancy and childhood may be summed up in the one term: hygiene, and the conscientious practitioner will, I believe, agree that the measure of his success bears a direct ratio with his application of the principles of this all important subject.

In connection with this statement the writer begs that he may not be understood as attempting to simplify, but rather to amplify and intensify the relations and responsibilities of the physician to his little patients.

Hygiene, in its broadest sense is not satisfied with anything short of all the knowledge suggested by the curricula of our best schools, and demands in addition, a special familiarity with facts biologic, histologic, embryologic, physiologic, anatomic, etiologic and pathologic in their relation particularly to this developing period of man.

Man, as a finished entity, furnishes a study of great complexity as to his physiologic and hygienic requirements. How

much more intricate, then, must be the problem as to the requirements of the independent and co-related processes, during the ever changing phases of the transitional periods of infancy. Hygiene, in its broadest sense, embracing all that pertains to the environment in its relation to the present and future well-being of the infant, demands as stated a fairly comprehensive knowledge of a great number of widely different subjects. To this must be added a familiarity with the general principles of heredity, evolution, climatology, dietetics and culinary science. It may be objected that the requirements here enumerated are too extended, or that the subject is presented on too grand a scale. However, the scale of requirements appears insignificant when compared with the grandeur of the possibilities of one infant life.

Among all the obstacles to be overcome, two things particularly stand in the way of the application of the principles of hygiene of infancy. First, there is a want of information on the part of the physician, or a disinclination to apply his knowledge. Second, the unwillingness of the mother to be guided in this respect. These two conditions, by acting and reacting, each upon the other, established a "vicious circle." Two erroneous conclusions have taken firm hold of the lay mind, and to some degree of the professional mind also. One is, that the maternal instinct endows the mother with a knowledge that is sufficient for all the requirements of the infant, (affection versus science); the other is, that the representative of science, however highly endowed, knows but little of the requirements of the babe, because of its inability to furnish verbal information.

Lack of applied knowledge then, in all that pertains to the different stages of the developing period, is the sum and substance of the explanation of this enormous default of man to his parental responsibilities.

Theories of heredity have done much to mislead us in our understanding of the child. The conception that infancy was the epitome of manhood rather than a mere

aggregation of potentialities has proved for centuries the stumbling stone of both the laity and the profession.

Our hygiene and therapy for the little ones have been absurd enough to warrant the suspicion that it was founded upon the principles set forth by Tristram Shandy, in his proposed extension of the application of the papal bull concerning pre-natal baptism.

The idea of Homunculus stood for the new-born, the infant, the child and the youth, and theories of hygiene, pathology and therapy, (God save the mark) clustered thickly around this monstrous delusion.

Apparent facts deduced from observations through a hole in Alex St. Martin's stomach were made the basis of rules for the feeding of infants and children. Physiologic actions of drugs, as determined in laboratory observations upon the hepatic secretions of well dogs, were made the basis of therapeutic dogmas regarding their effects upon the livers of sick men, and the indications for exhibition to babies regardless of age.

Posological tables venerated from long familiarity in adult use, were reduced by ingenious shrinking and crimping processes to meet the supposed requirements of Homunculus. "The age divided by the sum of the age and twelve equals a suit of clothes made for the man with the pants and sleeves turned up to fit the body," was an equation which every young practitioner religiously pasted in his hat for ready reference.

We fed the Minotaur, "O! Science; in thy name."

Twenty six hundred years ago an aged seer, foot sore and heart sore from his futile efforts with arrogant rulers for the elevation of his race, now on the eve of departure, exiled from the land of his birth through the tyranny of kings, paused on a hillside overlooking the beautiful valleys of Palestine. Familiar indeed was every feature of hill and dale, of distant mountain, of lake and winding stream, of the great walled city, the clustering hamlets and humble cots that dot the landscape;

since for three score years they have been the daily witnesses of his untiring efforts against greed, avarice, oppression and all the unholy passions of man. As he stands there twilight falls, the din of the great city subsides, the lowing herds and barking dogs and hum of voices are hushed. The stars come out, and bourne upon the still evening air a sound falls upon his aged ear, strange, weird, low and mournful; from every hut and home and hamlet in the valley. On the lone mountain side and from the great city. Ah; the voice, he said, of lamentation and bitter weeping. "Rachel weeping for her children, refuses to be comforted for her children, because they are not."

Centuries have passed since Jeremiah felt the full import of woman's lamentations in Ramah, but the sounds of bitter weeping have continued. The world's great mother-heart still throbs with pain and loneliness for the loved little ones "who are not." The sympathetic ear may, amid the noise and bustle of this busy struggling world occasionally in the quiet hush of contemplation, hear swelling in a mighty, subdued undertone this plaint of the grief-burdened heart of childless woman. Weeping Rachel persistent in thy grief and shrewd withal!

A mother most dear to the writer was told sixty years ago, while watching the ebbing life of her little one, by an eminent physician of that day, "I should have treated your babe for rheumatism did medical science recognize that affection in infants." At the graveside, in reply to the minister's question "can you not respect the will of Heaven?" she replied: "Yes, but not the ignorance of man."

If a student be well grounded in anatomy, physiology, diagnosis and pathology of the adult why is it necessary to devote special study to the diseases of children? is a question that has been asked.

Infancy is a transitional stage in which the functions that minister to growth are widely different from those similarly named in the adult. The disorders of infancy are oftenest due to a want of symmetrical de-

velopment of different organs or to a "clashing of functions." Infants change daily until their organs arrive at the stage where they assume the fixed type of the adult.

By far the greater number of disorders of infancy and childhood is due to neglect of the commonest principles of hygiene which, for obvious reasons, must differ widely in many respects from the hygiene of adults. Until quite recently the hygiene of infancy has received but a limited degree of attention; the result shows in the high rate of mortality in this period of life.

In this connection it is noticeable that the death rate of infants has shown a decrease whenever efforts at improvement, either dietetic or environmental, have been made; as in cities whose sanitary regulations have been enforced, or where the food supplies, especially milk, have been made a matter of rigid supervision.

The importance of a familiarity with all that pertains to the disorders of infancy and childhood might be emphasized, if necessary, by the well known fact that, almost without exception, the young physician's early work is made up largely of calls to sick children. Moreover, the study of the development period of man, and a knowledge of the causes which operate to disturb the balance of important functions of the growing body must be thorough in order that pathological conditions resulting later in life from these disturbances may be understood. If the proper study of mankind is man, we believe that this study should begin with infancy. Early efforts at prevention are more profitable than late efforts at cure.

It would seem hardly necessary to state that the most approved methods of diagnosis applicable to adult cases often prove inadequate when applied to disorders of infancy. Nor is it uncommon for the skillful diagnostician of large experience and familiarity with the varied manifestations of disease in adults to stand confused in the presence of some of the commonest disorders of early life. So apparent has this been that even the laity are apt to suggest that you cannot tell much about a baby's

disorder, because of his inability to describe his symptoms. Too frequently this assertion finds an echo in the consciousness of the physician who admits, tacitly at least, the truth of the statement.

Today no one questions the importance of the studies of anatomy and physiology as preparatory to the practice of medicine. This granted, is it not pertinent to inquire by what right we assumed the role of practitioners to diseases of infancy without a knowledge of the anatomy and physiology of that age? No physician would consider himself competent to practice veterinary medicine without some additional instruction in regard to the peculiarities, anatomic, physiologic and pathologic, of his four footed patients. A special course of instruction is an unquestionable requisite. By what logic, then, does he consider himself thoroughly prepared for pediatric work when his little patients present peculiarities differing from the adult type much more widely?

That the medical profession is recognizing the importance of a special study in this direction is evidenced by the rapidly increasing interest the world over in pediatric subjects.

Although the practice of medicine antedates the Christian era, it is the work of the last three decades that most of the contributions to pediatric science are due. Whereas twenty years ago no medical curriculum in the English language included a chair on the diseases of children, neither was there a medical society nor medical journal devoted exclusively to the discussion of that subject; today there is no medical college in the world without a special teacher of pediatrics, and numerous societies and ably conducted periodicals emphasize the growing importance of special work along this line. Ten years ago the pediatricians of the world might be counted on one's fingers. Today the work is engaging the exclusive attention of scores of the brightest minds of the profession.

To the thoughtful mind, appreciating that the science of medicine devotes her disciples to the alleviation of human suffer-

ing and to the prolongation of human life, comes the question, why, in the fact of the startling mortality, this fruitful field was not earlier cultivated. It would be a sad commentary upon the humanity of man towards his progeny to reply that the lives and comfort of his little ones were overlooked in the fierce struggle to secure the same blessings for himself.

Within the last decade the large cities have shown a reduction in the death rate of infants and children, to which the increased interest in the disorders peculiar to this class bears admittedly a causative relationship.

Today the lay mind, as well as that of the profession, is awakening to the need of a more thorough preparation.

Societies are being organized for child study from which much is to be expected to increase our knowledge of the physiologic and psychologic phases of this important period. In fact much has already been accomplished as was evidenced in the convention of child study in Chicago last week. Systematic experimental observations upon large numbers of children of different ages have been instituted in some of the public schools, resulting in exceedingly interesting and valuable data, by Gilbert, in New Haven. Porter in St. Louis, and Christopher in Chicago. In the latter city, as in some others, a more or less systematic, though limited, medical supervision of the pupils has been inaugurated which during the past winter has shown positive results in checking the spread of acute contagious diseases, not to mention the benefits to pupils thus inspected. As a partial result of these investigations, the conclusion has been reached that our boasted school system may prove a great evil if not properly guarded.

The public school is recognized as the great juvenile board of trade, where exchange of infections and their products may be effected, and a great disseminator of contagion. Much has been written and said, and great good has resulted in the matter of improved school hygiene, but hitherto its application has been made principally

to the pupil body en mass. The question of individual pupil hygiene should find a response in every intelligent parental mind. Aside from dangers of contact infection, the question of injury to the individual pupil by ordinary schoolroom regimen is a subject worthy of careful study, and the wrecks, physical and mental, which strew the pathway of life but emphasize our need of more definite knowledge. It is now accepted that many children, generally recognized as able-bodied, may not be subjected to the routine of school life without positive, irreparable injury to themselves, if not to their associates.

Defective hearing, vision and tactile sense as well as hæmic, secretory and excretory faults unfit many children for the modern schoolroom. No child should be admitted to any grade in school without a medical certificate from a competent examiner. And the writer begs leave now to submit the propriety of State legislation looking toward such medical supervision of the pupils in our public schools.

A careful observer of medical teaching will remark that with few exceptions advancement in methods of practice and medical instruction has followed a demand which has originated with the laity. I know that some of my hearers will question this statement and refuse to recognize as a factor those influences to which they have heretofore credited the reformations in theology, sociology, moral philosophy and politics. To such I would merely recite the revulsion from heroic allopathy to hydrotherapy from the abuse of inorganic remedial agents, to Thompsonianism, from phlebotomy to expectancy, and from polypharmacy to homeopathy. Nor may we, as has been too often attempted, liken the fad-following of the lay mind to the unreasoning impulses of brutes stamped by trivial circumstances.

The refutation is seen in this, that when positive demonstration of the utility of a medical or surgical procedure is rendered possible by definite results, the lay mind accepts the dictum of the doctors with but trifling dissent. Witness the general

acceptation of vaccination. Quinine in malaria, alcohol as a stimulant and surgical procedures too numerous to mention. The profession has not been slow in many instances to profit by these tidal waves of popular dissent from the established usages. Many instances might be cited in which scientific medicine has gained by the reaction. The world owes to homeopathy a debt far beyond the dreams of its self-deluded founder for its influence in leading the profession away from the dogmatic routine treatment of "homunculus" to a more rational expectancy with more careful consideration of the hygienic requirements of the infant.

The voice of Rachel who will not be comforted and will not be appeased by anything short of results, is the underlying cause of this activity which finds its expression in kindergartens, in lecture courses to mothers, in societies for child study, and in the medical study of pediatrics.

The advancement of the standard of requirements is not due so much to the efforts of the colleges as to the demand of the people. In fact, the schools are too often obstructionists. The recent establishment of pediatric chairs in many of our colleges is in direct response to the demand for definite instruction in this important, but neglected branch, a reflex from the graduates who early feel their unpreparedness to meet the crying demand. The speaker would like to suggest that the time is now ripe for the extension of the scope of our State examination to include the subjects of anatomy, physiology and hygiene of the developmental period, as a test of the fitness of the applicant to assume the responsibilities of the medical care of infants and children.

On a rocky eminence overlooking the Hermus, and visible for many miles, stands in bold relief a gigantic female figure—Niobe—according to ancient mythology, turned to stone, and placed upon the brow of Mount Sipylus by the Gods in commiseration for her grief at the loss of her beautiful children, slain by Appollo and Diana. Tears, fed by natural springs, flow continually from her eyes. Thus for ages, had

the mariner and the passer-by been constantly reminded of the perpetual sorrow and pity incited thereby in the breast of Gods at the loss of children. Some of my hearers have seen in the Uffizi gallery at Florence, the beautiful statue of the sorrowing Queen of Thebes. The sculptor has portrayed with such consummate art in this statue the bowed attitude and touching lineaments, the expression of overwhelming and unconsolable sorrow, that even the careless observer must perforce turn again and yield perhaps a tear of sympathy. The touching pathos of the subject has led to the reproduction of numerous copies of the weeping Niobe, so that the perpetuation of the expression of intense grief has found a place in almost every collection of art.

That the lamentation of Rachel and the tears of Niobe have wrought upon human sympathy even in the fierce struggle for existence in this cold world is everywhere in evidence in the awakening instinct in all that pertains to the preservation of children. A Theseus is demanded! Medical science must furnish forth that champion. Will he now lead boldly as in Athenian days against the minotaur, or must he with reluctant hand be pushed forward by the determined hands of motherhood aroused?

THE MANAGEMENT OF IMPACTED CASES.*

BY HENRY F. LEWIS, A. B., M. D., CHICAGO.

In obstetrics impaction may be defined as that condition in which the presenting part is stuck fast in the maternal passages, neither advancing with the pains nor receding in the intervals.¹ The presenting part of the fetus wedged in the pelvic canal renders the soft parts anemic by pressure, which, if continued long enough, causes necrosis. At the same time, the pressure interferes with the circulation of the parts in the canal below so that these become swollen and edematous. But the worst

feature of the case is that the labor becomes indefinitely prolonged, and indeed cannot be terminated unless the pains greatly increase their intensity, or unless assistance is furnished. It might appear obvious that any head which can enter the pelvis can emerge from it, except in the extremely rare instances of funnel-shaped pelvis.² This is theoretically true, but practically, in a real impacted case, the dangers of great prolongation of labor are so great that radical operative interference is demanded.

Stimulating drugs, such as alcohol or quinine, may be used, but their effects are problematical and little reliance can be placed upon them. The use of drugs like ergot, which tend to cause tetanic contraction of the uterine muscle, with consequent danger of rupture of the uterus and of interference with the respiratory function of the child, are to be strongly condemned. In all cases of impaction one of three things must be done: the powers of expulsion must be augmented; the passages must be enlarged, or the passenger must be diminished in size. The first is accomplished by pushing or pulling; the second by symphysiotomy, and the third by embryulcia. With the presenting part so snug in the canal that it cannot without difficulty be moved up or down, Cæsarean section must be out of the question, because of the danger of pulling back the impacted fetus.

In this paper I shall consider impaction as limited in causation to disproportion between the bony canal and the presenting part, and shall not consider dystocia due to tumors, cicatrices, etc. Any part which presents may become impacted if it is too large for the canal, or if it enters the canal in an unfavorable position.

The breech, of course, can only rarely fit so tightly as to stick fast. The delay in such presentations is more often on account of the difficulty of dilating the os or from inertia. A child with a breech large enough to obstruct labor and to become impacted would be too large to allow its aftercoming head to pass, except in the case of a monstrosity. Likewise a pelvis small enough to present such an obstruction to

*Read at the Fiftieth Annual Meeting of the Illinois State Medical Society, Springfield, May 16, 1900.

the passage of a breech would also be too small to allow the birth of the rest of the body and the head, except that head be abnormally small for its body. In some instances of anencephalus the body takes on a gigantic growth sufficient to be a cause of dystocia, and in such cases the breech may be so large as to become impacted within the pelvic canal.³ Even in such monsters it must very rarely happen that impaction will occur because the necessary pressure between the pelvic walls and the soft breech would seldom be sufficient to stop all progress. If the uterine pains continue strong, the case may usually be left to nature. There will, of course, be no trouble in the passage of the aftercoming head. When interference is indicated, we have the choice of the usual methods of artificial extraction of a breech, namely, forceps, the blunt hook, the fillet and the hooked finger.

Authorities differ concerning the application of forceps to a breech. The blades are very likely to slip when traction is exerted, and thereby injure the maternal soft parts. If enough compression is exerted to prevent this slipping there will be dangerous pressure upon the soft parts of the child, and even danger of injury or fracture of the thighs or ilia. In many cases, however, extreme care and skill have resulted favorably by the use of forceps applied over sacrum and thigh.⁴ The blunt hook passed into the fold of the groin is better if care is taken not to injure the soft parts in the introduction and if traction is exerted in the line of the axis of the fetal body to guard against breaking the thigh. Of course, in the case of the anencephalus which we are considering, it makes little difference whether the child's parts are injured, because the monster is incapable of living after birth, but, when such a fetus presents by the breech, a certain diagnosis is not easy, to say the least. The fillet is a less dangerous instrument, but is more difficult to introduce, even with the help of a porte fillet, or of a webbing male catheter. These instruments, too, will seldom be found in the obstetric bag. As in the ex-

traction of breech cases in general, we are usually reduced to the use as a tractor of the finger hooked into the fold between the anterior thigh and the belly. Under an anesthetic, with the hand in the vagina, the forefinger can usually be employed. If these means fail, we have the choice between embryotomy and symphysiotomy. If we know the child is dead, we choose the former; if not, we choose the latter, unless we have been so skillful or fortunate as to have already made the diagnosis of the monstrosity.

With anencephalus of gigantic body presenting by the vertex, the shoulder may become impacted. In such an event, by the time the shoulder has advanced far enough to become impacted, it will usually be possible, on careful digital examination, to make a diagnosis of the monstrosity. Having done this, if the efforts of nature fail to cause an advance of the fetus, there remain but two justifiable procedures. The first is extraction with the cranioclast or cephalotribe. The ordinary forceps cannot be applied to an anencephalic skull. The life of the fetus is worthless. We have in such a case practically the same condition as after perforation and evacuation of the skull. The cranioclast will easily fit the anencephalic head and strong traction can be exercised. If, on account of too tight impaction, the fetus is not easily extracted by the first method, we must resort to the second, which is embryotomy. Complete cutting up of the fetal body or even section of ribs may not be necessary, but it may suffice to do cleidotomy. This cutting in two of one or both clavicles will probably allow the shoulders to come close enough together to permit extraction by the cranioclast or even spontaneous birth.⁵

In transverse presentations which have been neglected the uterine forces may have forced the presenting shoulder so far down into the pelvis that the bent fetal body becomes impacted. Of course, it is barely possible as an obstetric curiosity for the child to be born spontaneously if not too large for the pelvis, and if strong pains continue, but no one would be justified in wait-

ing for such a termination. In impaction of the shoulder there is only one thing to be done, and that is embryotomy. Bear in mind that I am dealing with a shoulder which has come down so far that it cannot advance and cannot easily be pushed back. I am not speaking merely of a prolapsed arm where version might be justifiable. If a shoulder has been forced down so far that it has become really impacted, it is too late to think of version. The uterus has now become too small to hold the whole fetal body with the addition of the operator's hand, and the lower segment has become much thinned; therefore rupture would be almost certain if such a procedure was attempted. Besides this, the child is almost certainly dead or moribund, and its chances of life need not enter into the judgment of the case. Decapitation is now the operation of choice. It can be done with Braun's "key-hook," Zweifel's trachelorhector, or other suitable instrument. If these are not at hand or obtainable, it may be necessary to procure a piece of strong whipcord, to render it thoroughly aseptic and, by means of a porte fillet or catheter, long forceps or fingers, to pass it around the neck. Then, by strong traction guided by one hand grasping the child's neck, together with a little sawing motion, it may be possible to sever the head from the body. It is, however, quite likely that there will be no room for such maneuvers, and then the only thing to be done is to cut through the neck with a strong pair of scissors guided by a hand in the vagina. When the head is free, the body can be drawn out by pulling on the prolapsed arm, after which the head may be born spontaneously. If not, it may be forced to engage in the brim by pressure from above, and may be delivered by a finger in the foramen magnum or by forceps, or may be perforated and extracted by the cranioclast. It is better not to cut off the prolapsed arm unless it is very much in the way in amputating the head because it is useful as a handle in extracting the body. If decapitation is impossible, evacuation of the thoracic and abdominal contents may allow birth by doub-

ling of the fetal body or may afford room for decapitation.

Double monsters may become impacted in almost any part, depending upon their species. As a rule, they are born prematurely and consequently are small enough to be born spontaneously in spite of their irregular shape. When they do become impacted, and the diagnosis of the monstrosity has been made, embryulcia would seem to be the only resource.

Of all parts of the fetus the head is most prone to impaction. Given a normal position of the vertex, impaction may occur in any portion of the pelvic canal on account of smallness or deformity of that canal, or on account of bigness of the head. Careful examination and mensuration before labor will often reveal the disproportion between head and canal and enable the obstetrician to take measures which will forestall trouble. Especially will the size of the pelvis be ascertained by such preliminary examination. The size of the head is more difficult to estimate unless the patient is slim or has relaxed abdominal walls. Except in such women, it is difficult or impossible even to differentiate between flexion or partial extension of the head, so as to determine whether face or brow is going to present. Without anesthesia in women at all plump, especially primiparæ, it will be well-nigh impossible, by external examination alone to make so refined a diagnosis, except for the very expert few.

Perret⁶ of Paris, has invented a cephalometer for measuring the fetal skull through the abdominal walls. It consists of a modified form of calipers by which it is intended to measure directly the occipitofrontal diameter which has been found to bear a constant average relation to the biparietal.

Even internal vaginal examination, unless the whole hand be passed through the vulva, will seldom reveal much more before the head has become engaged at the brim. If the operator has any reason to suspect that the head is abnormally large or is presenting in an unfavorable position, he should give an anesthetic and examine with

care externally and also introduce the hand into the vagina.

In considering impaction in presentations of the cephalic pole, we come first to occiput-anterior positions. Such cases become impacted because of disproportion between head and pelvis, either from bigness of the one or smallness of the other. Theoretically, both of these conditions should have been recognized beforehand. Practically, in many instances it will be impossible for most of us to do this. The great majority of cases of delayed labor are caused by this disproportion and whether this is enough to cause the head to stick or not too much for the forces of nature to overcome is a difficult question to settle beforehand. Where the head is too large to comfortably pass the pelvis, we have a condition exactly parallel to that where the pelvis is too small, namely, a justo-minor pelvis, and the same treatment should be applied to each. If our preliminary examinations reveal a justo-minor pelvis of sufficient degree to render it probable that a full-sized head cannot pass, it is justifiable and indeed indicated to provoke labor prematurely, so as to bring the head through before it has grown large enough to become impacted. If the child seems to be of the normal size and the true conjugate is three and one-half inches or less the chances for mother and child would be better with a premature labor during the last month than to attempt to drag the head through by forceps or to do symphysiotomy, especially after impaction. Except for very few, external measurements of the child's head will have small value but an estimate of the probable size of the child can be reached by measurement of the fetal ovoid.⁷ The distance from breech to vertex of the fetus curled up and flexed within the uterus is about half of its length stretched out from sole to crown. Knowing the normal size of the full term child to be about nineteen inches and finding that the distance from the vertex to the pelvic pole is nine or nine and one-half inches, we know that we probably have to deal with a normal sized child. This distance can be measured by

the pelvimeter; if the head is not deep in the pelvis, by external application of that instrument; if the head is engaged, one end of the pelvimeter can be placed against the presenting part by way of the vagina and the other against the breech upon the abdomen. From this measurement deduct the thickness of the abdominal wall, which can either be estimated or measured by pinching up a fold.

In practice many cases will arise where we cannot make these estimations, even when we examine some time before the labor, because of thick or tense abdominal walls, contracted uterus, hydramnios or other obstacle to accurate diagnosis. In such cases, if sufficient disproportion of passenger to passage exists, impaction will ensue. There will also be cases where we have not had or taken the opportunity to examine beforehand. In such cases we are confronted with a condition which demands artificial interference. As soon as impaction is recognized, that is, as soon as the head ceases to recede after a pain, then help is indicated.⁸ Webster⁹ advises the application of axis-traction forceps in impacted head cases where the true conjugate is three and one-half inches. In practice it is justifiable to try axis-traction forceps, and, if moderate efforts do not advance the head, to perform symphysiotomy before patient and child are brought into danger from a prolonged and difficult labor. Under proper conditions of asepsis, an elective symphysiotomy promises less danger to the child or to the soft parts of the mother than a high forceps operation with extraction of the head by main strength. High forceps is at best a dangerous instrument, bringing as it does, two large sharp steel blades well up into the lower segment of the uterus; blades with two complicated curves situated far up, out of sight and feeling of the operator. When, therefore, in the use of high forceps, great strength of pull is necessary, some other operation is indicated. Symphysiotomy adds a little more than half an inch to the conjugate diameter of the brim. In impacted cases the operation is indicated, after the failure

of forceps is determined, whenever this half an inch added will give a diameter through which the child's head can probably pass. Therefore, the operation is permissible with a conjugate measuring three inches or a trifle less. Practically, however, these measurements are, in the class of cases under consideration, of less importance than would at first sight appear. Obviously a head cannot become impacted unless the equator can enter the brim. Unless the outlet is proportionally smaller than the inlet, the addition of half an inch to the conjugate diameter will always allow passage through the whole canal. Therefore, if a head becomes impacted and the pelvis is not markedly funnel-shaped, symphysiotomy will always give room enough for its complete birth. Except in funnel-shaped pelves, craniotomy on the living child will never be indicated when the head is stuck in the canal, unless extraneous circumstances forbid symphysiotomy.

The head in an occiput-posterior position enters the inlet with a normal diameter, but unless it rotates forward, tends to emerge at the outlet with an abnormal diameter. This latter diameter is the occipito-frontal or even the occipito-mental. Unless extreme flexion is induced and maintained, one of these impossible diameters will present at the inferior strait and will necessarily become impacted. The effort of the accoucheur in such cases is to maintain flexion, chiefly by use of forceps, so that as near an approach as possible to the sub-occipito-bregmatic diameter will be that to enter the outlet. It does not lie within the scope of my paper to discuss the prophylaxis of persistent occiput-posterior positions, nor the means of causing anterior rotation. If the head is stuck so tightly, with a large diameter engaging, that it is impossible by any means to flex it, symphysiotomy is indicated if the half inch added to the antero-posterior diameter of the outlet of the pelvis is sufficient to allow the large diameter to pass or the head to be somewhat flexed. One of these events must almost invariably occur. The perforation of a living head for impacted persist-

ent posterior position can seldom be justifiable.

Certain reasons apart from strictly scientific obstetrical indications will sometimes compel the accoucheur to vary his rule. "In all difficult and prolonged labor cases in which many operators have examined and many instruments have been used, and operations have been attempted and failed, the child as a result of these prolonged, fruitless and severe manipulations has often suffered so severely as to have been nearly or already sacrificed. In such cases a deliberate perforation ought always to hold preference."¹⁰

From occiput-posterior positions the transition is easy to presentations of the brow and of the face. In posterior positions of the occiput the examining finger meets first the anterior fontanelle and the parietal bones, as the vertex engages at the brim. With the child's back posterior, on account of the mother's spinal column, the obliquity of the plane of the brim and the influence of the mother's dorsal posture, the position is less favorable for the maintenance of flexion than with the fetal back anterior. It is, therefore, easy for extension to occur, for the anterior fontanelle to be forced lower and for the brow to present at the superior strait. It is only a step further for the face to be the presenting part. A complete face presentation with chin anterior will become impacted only on account of disproportionate size of head to pelvic canal. A brow presentation, on the other hand, offers an abnormal diameter for passage, a diameter impossible of birth in the case of a normal child and normal pelvis unless there is excessive molding of the fetal head. Some molding there must needs be before the head can enter the pelvis far enough to become impacted. With an impacted brow we may first try axis-traction forceps in the hope that the head is small enough or flexible enough to be born by its help, without the use of undue force. If all justifiable force fails to budge the head, we have the two resources: perforation, if we are sure that the child is dead, and symphysiotomy if it is alive.

While it is true that the longest diameter of the head presents yet, if the head has been forced down far enough to become impacted, this diameter will have been sufficiently compressed to allow the passage with the additional room which symphysiotomy furnishes.

Schatz¹¹ of Rostock, holds that it is erroneous to consider brow as a variety of face presentation. He believes that most stable brows are produced by drawing back of the fetal head by the fetal neck, which in turn, is held back by spasmodic contraction of the internal os or of the contraction ring. This spasm draws up the shoulders and thereby the neck and so the base of the skull. Schatz has always observed this spasm of the internal os whenever brow presentation occurred and has even tested its force with the dynamometer. The history of such labors is that the head, rather small in comparison with the pelvis, comes down with each pain to the floor of the pelvis and then goes all the way back in the intervals. Heads a little larger may be held in the extended position during a few strong pains and thus become impacted. The characteristic feature of such brow presentations is that, even if efforts at bringing down the occiput temporarily succeed, yet, as soon as they are omitted, the head again extends and the brow again becomes the presenting part.

Brow presentations are rare; according to Guy's Hospital records, 1 in 1,756 labors. They are the most dangerous and difficult of all head presentations. In most cases impaction occurs unless the head is small. The maternal mortality is 10 per cent., and the fetal 30 per cent.¹² Henricius¹³ gives these figures as 17 per cent. and 33 per cent. respectively.

In the obstetrical clinic of Moscow,¹⁴ out of a total of 8,330 births from 1887 to 1897, there were 21 face and 18 brow presentations. This makes a proportion of brow 1 to 463, a much larger ratio than other statistics give. The brow cases were treated as follows: By version 10, of which one child died and one mother had a septic uterus afterwards; 1 by forceps at the out-

let on account of weakening pains (mother and child well); 1, a twin weighing 2,430 grams, was born spontaneously; 1 by changing to an occiput presentation by means of the forceps, with happy results for both parties; 5 by artificial changing of brow to face by traction on the upper jaw. Of these last five cases, all had the brow to the front so that they were changed to mentum-anterior positions. In that clinic version is preferred in brow presentations, if possible, but if not, alteration into a face.

I report a rather interesting case of impacted brow in which Dr. Denslow Lewis and I performed what I think is one of the earliest of the symphysiotomies done in Chicago. The patient was a plump and vigorous primipara, aged thirty-five years, who had been married fourteen years. The pregnancy was without particular incident and its termination was looked for April 7th, 1895. She noticed no settling of the fundus. Complete pelvic measurements were unfortunately not obtained, but the conjugate was estimated to be four and one-quarter inches. On external examination the head was found to be below, the back to the front and right, and the fetal heart beat near the median line, two inches below the navel.

Labor pains began about noon of April 22d, but were not severe enough to cause her to send for me until after mid-night. The vertex was found in the lower segment, but not engaged. Vaginal examination showed the os dilated to the size of a quarter, membranes intact and the brow presenting with the chin high up towards the back and the left. The patient was kept on the left side for two hours;¹⁵ attempts were made to push the brow back so as to allow the occiput to engage; the knee-chest posture was tried, as was external flexion, by pressing upon breech and chest of child,¹⁶ and the hand was passed in to pull down the occiput (Baudelocque). While all these maneuvers succeeded in part and temporarily, yet the malposition returned again each time. No attempt was made to convert into a full face presentation, because I feared the possible persist-

ent posterior position of the chin more than the condition already confronting me. Meanwhile the membranes ruptured, the os completely dilated and the head came down into the pelvic brim and became impacted. With the aid of Drs. Denslow Lewis and S. C. Plummer, Tarnier forceps were applied, but no justifiable force would move the head. Symphysiotomy was then decided upon.¹⁷ An incision was then made by Dr. Denslow Lewis over the pubes and a probe-pointed bistoury passed above and behind the joint, and the incision made from above downwards and outwards. The tissues were very hard and the utmost difficulty was experienced in cutting through the cartilage of the joint, which indeed seemed ossified. After wearing out the fingers of both of us, the incision was finally accomplished. As the bones separated upon cutting the ligamentum arcuatum, a tear occurred in the mucous membrane between the clitoris and urethra, communicating with the wound of incision. The bones separated about two inches and the child was delivered by forceps in a few minutes. The chin rotated towards the left and came out under the pubes. A tight stout muslin bandage was fastened about the hips. The convalescence was without particular incident. The child had the distorted head peculiar to a brow presentation, but soon acquired the normal appearance and is now living and in good health.

The accident which happened to us of a tear in the anterior vagina is obviated by Harris¹⁸ by not cutting the ligamentum arcuatum and therefore not letting the bones separate so much. Unless, however, this is cut, in many cases the bones will not separate enough. Of course, version performed before the waters had drained away would have obviated the necessity of a symphysiotomy. I trusted, however, to posture and external manipulations to accomplish flexion until the waters drained away, after which the uterus speedily contracted firmly and the head became impacted in the superior strait. By the time I had abandoned these methods of changing the presentation, the time for version

had gone. It is worth while to add also that Pinard considers symphysiotomy no more dangerous than version.

To summarize, I may say that in impaction of the presenting part of the fetus within the pelvic canal, traction with forceps or otherwise should first be tried, except in cases of monstrosity or in transverse shoulder presentations, in which cases embryulcia is our proper resource. If justifiable force in traction fails to move the fetus, symphysiotomy remains, if the child is living and a mutilating operation if the child is dead.

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THE MUTILATING OPERATIONS IN OBSTETRICS.*

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From personal observation, and especially from conversations with many physicians who attend the policlinic courses, I am firmly convinced that the operation of craniotomy and decapitation are made much less frequently than is demanded by good obstetrical practice. I find that but few physicians are furnished with a perforator, cranioclast or decapitator, and very few have had any practice on the manikin with these

*Read at the Fiftieth Annual Meeting of the Illinois State Medical Society, Springfield, May 16, 1900.

operations. As a result the high forceps are often applied to a child that is dead, without much regard to the preparation of the cervix, and very serious or fatal injuries result. Because of the neglect of this very important subject I am glad to discuss it before this meeting of general practitioners.

Mutilating operations are generally indicated in cases of obstructed labor in contracted pelves where the child is dead. Obstruction in the soft parts, for example, incomplete dilatation of the cervix, or stenosis of the vagina or vulva due perhaps to scar formation, may sometimes furnish the indication. If the child is dead and there is urgent reason to end labor before the obstetrical canal is prepared an operation which reduces the size of the child is decidedly preferable to forceps or turning and extraction which involve the risk of serious maternal injuries.

The perforation or decapitation of the living child is becoming less frequent as the results of high forceps operations, Cæsarean section and symphysiotomy are improved, yet it is not possible to make a rule condemning the operation in every case. Every one is liable to find himself in a situation where he must choose whether he would advise a woman to assume the risk of a serious operation like Cæsarean section or symphysiotomy for the doubtful chance of rescuing a child known to be very feeble by its weak and abnormally rapid heart tones. Or, one may have an infected mother to whom a Cæsarean section would be very serious. One must also consider the circumstances and surroundings of the patient which may practically preclude all thought of a section. Moreover, the operator's own surgical ability or the possibility of obtaining surgical assistance must be taken into consideration. Under unfavorable circumstances, when the mother and father object to any operation involving serious risks to the mother, the operator may be compelled to sacrifice the child. Fortunately, however, the indications for a mutilating operation on the living child are now so rare that in probably nine-tenths

of all cases it is done only on the child already dead.

Adhering to the indications already given, according to which contraction of the pelvis is the most important factor in producing the condition calling for the operation, the frequency with which it should be done would correspond in general to the frequency of contracted pelves. Contrary to the general opinion that this abnormality is more rare in this country than in Europe, the recent exact measurements made in several hospitals and dispensaries show that we have our fair share of contracted pelves. In this connection it is interesting to notice also that in the reports of the Chicago Health Department the number of still births which are largely due to protracted or tedious labors is from 7 to 10 per cent. of the total number of births reported. The statistics of both perforation and decapitation in the various European clinics, vary much. In the absence of any statistics of private practice in this country it is quite impossible to say how often the operation is performed. I believe the statement can be successfully defended when it is affirmed that perforation is indicated once in from 100 to 500 cases of labor, and that decapitation is indicated about once in 1,000 cases.

Since the death of the child is of such great importance as a condition for the operation of perforation or of decapitation, the determination of the question becomes very important. The auscultation of the fetal heart tones is the first thing to do. If the physician has been present in the early part of labor he should have determined the position of the child and the location of the area where the fetal heart is best heard. If this has not been done he must go carefully over the whole abdomen. I have better success in finding the heart tones by using a phonendoscope than a stethoscope. The ear applied directly to the skin is better than a stethoscope. During the examination any fetal movements are discovered. If the heart was previously heard plainly and the sounds have since disappeared we may feel quite certain that the

child is dead. In case of doubt it is possible to obtain certainty by introducing the hand into the uterus and examining the umbilical cord for pulsation. In this examination the possibility of rupturing the uterus by the introduction of the hand must be borne in mind, when the lower uterine segment is much distended.

Among the most urgent conditions that call for interference and determination or decision for perforation or decapitation, as the case may be, is this distention of the lower uterine segment. Since I am confident that this condition is often overlooked by many physicians I must emphasize its importance and say a word about its diagnosis. If the bladder is empty and the abdomen uncovered one may often see the line between the thick fundal portion of the uterus and the thin lower segment as it shows through the thin abdominal wall, somewhere between the symphysis and the umbilicus. The hand placed over the abdomen easily distinguishes the separating ridge. The higher the line the greater is the danger from rupture of the lower thin segment.

In coming to speak now of the different operations, and first of craniotomy, I do not propose to go into the details of the technique, but only to consider some of the points in dispute and show what I consider the best instruments.

Taking up first, craniotomy on the presenting head, we must not forget that perforation and extraction are two separate operations. When delivery is not urgently indicated there is no reason why it should not be left to nature after the head is made smaller by perforation and removal of the cranial contents, provided the degree of contraction is not so great as to render natural expulsion impossible or extremely doubtful. There can be no question that this course would avoid tears in the genital tract.

When extraction was necessary we formerly had to choose between the cranioclast and the cephalotribe. You know the disadvantages of each. The application of the cephalotribe was troublesome and danger-

ous because of the difficulty of seizing and compressing the head. The cranioclast was more easily applied, and in cases of pelves of fair size a model instrument, but when there was considerable disproportion between the head and the pelvis it easily tore out the portion of bone, leaving the rest of head. To avoid the objections attached to both instruments Auvard has constructed his combined cranioclast and cephalotribe, which is certainly a very powerful and satisfactory instrument. With this one may crush not only the roof of the skull, as with the cephalotribe, but also the base. This instrument has been variously modified to increase its effectiveness. The middle blade has been sharpened at the end to fit it for a perforator. This sharpened end has been provided with a double screw that it may fasten into the bone opposite its point of entrance. Professor Zweifel has changed the lock-axis from the middle blade to one of the outer blades, in order that the two outer blades may be used as a cephalotribe for the after-coming head. Professor Fehling has constructed a four-bladed instrument that may be used either as a cranioclast or as a combined instrument and adapted to seize the head in all positions.

The introduction of the three-bladed instrument has led the Vienna school, which has always used the cranioclast, to defend their instrument and has stimulated Peters to invent a modified cranioclast which has a longer outer blade and a perforating inner blade. It is also claimed for this instrument that it can be used to crush the base of the skull. So far as I know, this instrument of Peters, which according to the reports is very efficient, has never been introduced into this country. The Auvard instrument is now kept by all stores, and can be recommended as complete and efficient and one that will never leave the operator in the lurch.

The perforation of the after-coming head is not as frequently indicated here as in Germany for we do not turn for contracted pelvis as often as the Germans. There is by no means general agreement as to the

best place to perforate the after-coming head, some recommending the perforation of the occiput lying next to the symphysis pubis and others recommending the perforation through the neck and base of the skull next to the sacrum of the mother.

Without going into a discussion of the advantages and disadvantages of each of the methods I would advise the perforation next to the symphysis pubis at the most accessible point of the skull. This can be done by the sharpened middle blade of the Auvard instrument. If one chooses the route through the neck he must use the shears of Levret or Naegeli. In the majority of cases the extraction of the after-coming head, after the evacuation of the brain, can be accomplished by direct traction on the neck and head, after the method of Smellie. Should this fail I believe there is no danger in the use of Auvard's instrument.

It sometimes happens that after the delivery of the head the shoulders offer great resistance to the delivery of the body. This is particularly the case in well developed anencephalus monsters. Here von Herff and Phaenomenoff have proposed to cut or break the clavicle on one or both sides and thus reduce the circumference of the chest around the shoulders. This procedure, called cleidotomy, is a simple and valuable contribution to our means for aiding difficult labor in dead children. I use for this purpose a pair of heavy veterinary shears.

The recognized indications for decapitation are impaction, in a case of neglected cross presentation, or a dangerous distention of the lower uterine segment. To these indications I would like to add one that, so far as I know, has not been acknowledged, namely, a serious contamination of the presenting arm, and will illustrate by a case. It was in one of the dirtiest houses I have seen for some years. The assistant was called shortly after rupture of the membrane with the prolapse of the arm. He at once called me and I saw the patient within two or three hours of the expulsion of the arm before impaction had occurred

and before any serious distention of the lower uterine segment. The arm, however, was so thoroughly contaminated by the filthy bed that it seemed more dangerous to push it back into the uterus in the operation of turning than to decapitate and extract the head.

Since the introduction and general employment of the Braun hook, about 40 years ago, this instrument has nearly superseded all others. Recently its dangers and disadvantages have been again discussed as the result of the introduction by Professor Zweifel of a modification designed to take its place. This instrument of Professor Zweifel's is a double hook turning about an axis. It is claimed that it makes much easier and less dangerous the dislocation of the neck. In the defense of the Braun hook it is claimed that the dangers from its use arise from the failure to carry out the directions given by the inventor. The directions considered most important are those pertaining to the choice of the hand which is introduced to grasp the neck and protect the hook and the proper direction of the rotation of the hook. The neck should always be grasped by the hand corresponding to the side of the mother on which the head lies, and the hook should be turned first from side to side to dislocate the neck, and then rotated several times in one and the same direction, always with the end of the hook toward the head of the child. I believe that when the operator keeps constantly in mind the possible danger of the hook and carries out exactly the directions for its use, it is the most efficient and least dangerous of all instruments designed for this purpose.

An interesting proposition has been made by Kosminski of Cracow, for the performing of the mutilating operations according to more strict surgical principles. By the methods now in use a certain danger attaches to the introduction of the hand into the vagina. This may be avoided by the use of large retractors through which one may perform the various operations as he would a gynecological operation, Espe-

ially for the rarer cases of exenteration this proposition of Kosminski's seems to me worthy of imitation and adoption.

DISCUSSION ON THE SYMPOSIUM ON OBSTETRICS.

DR. CHARLES B. REED, Chicago: In regard to Dr. Allaben's paper on the use of the forceps, I would like to call attention to the necessity of insisting upon having the patient upon a table in using forceps. It is true that many of these cases can be terminated successfully without its use, but a table is really essential in justice to the woman. The first traction should be made downwards usually, and this can be more successfully done with the woman on a table with the operator seated in front of her. As the operation is not usually one of emergency, the obstetrician ought to insist on all the necessary assistance. There should be some one to administer the anesthetic, and there should be two other assistants who need not be trained necessarily. This is necessary not only in justice to the woman, and the success of the puerperium, but in justice to our art. It is certainly not desirable for us to do any serious obstetrical operation without the same number of assistants as would be necessary in any other surgical procedure of equal magnitude.

With reference to the paper of Dr. Percy, I do not think he made the distinction clear between the version of Carl Braun and the version of Braxton Hicks. He mentioned B. Hicks, but described the Carl Braun method. The method of Carl Braun consists in the introduction of the whole hand into the uterus and the turning of the child with the assistance of the other hand on the outside. The version of Braxton Hicks is made with the introduction of the entire hand into the vagina and two fingers in the uterus. Dr. Percy's distinction was not very clear to me, and it might not have been so to some of the other members of the Society.

In regard to cervical incision, I got the idea from his paper that these incisions should extend as far as the internal os or Bandl's ring. According to Dührssen's original paper, the cervical incisions should extend only to the vaginal junction of the cervix, unless a vaginal Caesarean section is contemplated.

In reference to the Prague method of delivery in comparison with the Smellie-Veit, the former method of delivery in these cases is most successfully used where the head is extended on the body, and the Smellie-Veit is employed in cases where the head is flexed. The latter is the more preferable method and the one more frequently employed by obstetricians at present.

With reference to the paper of Dr. Bacon, I would suggest the more frequent use of the Naegeli perforator, especially in the case of aftercoming head. The advantages of the instrument are that the perforation is more easily made. This is particularly true where the perforation is made through the roof of the mouth.

This point seems more desirable because there is no external sign of mutilation. The child's head is not disfigured apparently to the eye of the parent, which counts for a great deal, and it can be filled, if necessary, with cotton and restored to its original form. I should advocate perforation through the roof of the mouth with the Naegeli perforator, and the subsequent application of the cranioclast.

As to the use of Carl Braun's hook, in many instances it is not strong enough to produce decapitation. I have known it to be twisted like a piece of copper wire in the hands of a no less skillful operator than Dr. De Lee, and I am sure the instrument was skillfully used. I cannot suggest at the present moment, however, a substitute for it. I have had similar experiences with it while working on the manikin, but of course in these cases the tissues of the neck are changed and toughened by the process employed in preservation.

DR. S. E. MUNSON, Springfield: I wish to say a word or two in reference to Dr. Percy's paper, and particularly with regard to those cases in which it is necessary to produce a rapid operation, where there is no dilatation of the cervix, and he recommended the operation of Dührssen. In this connection I wish to speak of a case that I saw in Schauta's clinic in Vienna. The cervix was dilated by Hegar's bougies for curettement of the uterus, and by this process of dilatation a laceration was caused, followed by a profuse hemorrhage. Repeated suturing was done, yet the hemorrhage continued, and some hours later a vaginal hysterectomy was done to save the woman's life.

DR. CHARLES S. BACON, Chicago: In reply to the remarks of Dr. Reed concerning perforation of the aftercoming head, I had in mind particularly the general practitioner. Very few of them have an opportunity to do this operation many times. For that reason I recommended perforation as I did in my paper, recognizing fully the advantages of the other method, but believing for general use it was desirable.

In regard to the construction of this instrument, if properly made it would not yield as it did in a certain case. It must be borne in mind that we are dealing with a dull instrument to do this kind of work, and it is a mistake to grasp too much tissue at one time. We should grasp as little of the soft tissue at the first time as possible; we should dislocate the vertebrae, disconnect them, and take only a portion of the child. If the child is large, we should take but a small portion of the parts a second time, and one may twist three or four times in order to twist off the entire neck. If this is done, there is no risk of failure, as alluded to in one case.

DR. J. E. ALLABEN, Rockford: In reference to the remarks of Dr. Reed, I omitted part of my paper. In it I referred to the use of a table somewhat, also to assistants, etc. If Dr. Reed has ever practiced in the country and has to apply for an assistant who lives ten miles away, he would do these operations without any help at all except a couple of old women. My observations apply to cases in private practice,

where we do not have the facilities at our command that Dr. Reed and others have in their hospital work. In the country we must do the best we can under the circumstances. In many instances, particularly in ignorant families, there is great objection to the use of the forceps under any circumstances, and it is almost impossible to enlighten the people on the subject. Where it is necessary to use forceps, there should be as little display as possible, and they should not be used to the extent of jeopardizing the life of the child or of the mother. In some cases one might be able to use forceps with the woman upon a bed, when they would object to a table.

With reference to perforation of the after-coming head, the suggestion of Dr. Bacon is a good one, and I recall one instance where it was impossible to deliver the aftercoming head without perforation. The cosmetic effect in these cases is hardly worth considering, because the mutilation is in the back of the head.

DR. J. F. PERCY, Galesburg: In reply to the criticism of Dr. Reed, that I did not make my distinction quite clear between the method of Braxton Hicks, whereby one or two fingers are introduced into the cervical canal, and that of Carl Braun, whereby the whole hand is introduced into the uterus, I want to say in explanation that had I gone on in my paper and given an accurate description of the methods of every man who has attempted to write on this subject, I would have been reading yet if I had been permitted to do so. My object was to mention these methods in such manner, so that hereafter any individual who reads my paper might get something of what has been in the literature previously.

Dr. Reed also spoke of the matter of incisions in the cervix; that Dührssen's method consists merely of making incisions in the cervix up to the vaginal junction. I cannot refute his statement because I am not absolutely sure but what he is right. But I want to say this: I put that in my paper after consulting the literature carefully. I also said that I had never made use of these incisions, and that I would hereafter use the knife if such a case presented itself to me, and I make that statement because, after reading the literature, I have been influenced by the positive statements of Dührssen that there is no danger. I cast doubt upon this because of a case that occurred in my practice where I absolutely killed the woman by making incisions up to the vaginal junction of the cervix, and then after dragging the child through the cervical canal and splitting the uterus up to the broad ligament. I believe, after all, I am right when I quote Dührssen as saying that he makes his incisions clear through the cervix. If he says simply make our incisions through the cervix up to the vaginal junction, then the method is absolutely dangerous, as I have proven by the case I have mentioned. The woman died from shock inside of four hours.

DR. CHARLES B. REED, Chicago: I would like to say in regard to the Dührssen incisions again, it is interesting to follow the growth of these incisions in the mind of the originator.

In the first place, following the history of the operation, he made the incisions in cases of rigid cervix, mere nicks, then he extended them up to the vaginal junction. As the matter progressed in his mind, he kept saying to himself, why don't we do Cæsarean section this way, and he went on and made his next incision up to the internal os and we have his vaginal section. When the next case occurred he carried the incision up to Bandl's ring, so that the entire lower portion of the uterus was opened. To be sure, the subsequent operation was one of suturing, with the restoration of the uterus to its original condition. But the slow growth of the operation, beginning first, with nicking a rigid os; second, incising in four or more places up to the vaginal junction; third, completing his incision up to Bandl's ring; and following it, if necessary, by total vaginal hysterectomy, show the history of the operation very beautifully, and the gradual development in his mind of this method of procedure, and so far as the subsequent treatment is concerned, if the uterus is not sutured, it must be removed, although in Dührssen's book he stoutly maintains that when the incisions extend only to the vaginal junction suture is unnecessary.

THE ILLINOIS STATE MEDICAL SOCIETY.

PROCEEDINGS OF THE FIFTIETH ANNUAL MEETING (SEMI-CENTENNIAL)

HELD AT

SPRINGFIELD, MAY 15, 16 AND 17, 1900.

REPORT OF THE EXECUTIVE COMMITTEE, THE PRESIDENT, EX-OFFICIO CHAIRMAN.

President Moyer read the following report of this committee:

The Executive Committee met at the office of Dr. George F. Butler, Chicago, October 10th, 1899. There were present all members of the committee except Dr. Bartlett, of Springfield. It was decided that the sessions of the various sections should be as was the custom in years past. It was also suggested that each essayist send in a synopsis of his paper to be published in the May issue of the Journal. The usual order of business, as published in the program, was adhered to. It was agreed that the Jubilee feature of the meeting should be confined to the after-dinner talking on Wednesday evening. The chairmen of the various sections were given the privilege to name the various gentlemen to deliver ad-

dresses. It was recommended that there should be a full three days' session.

The President: What is your pleasure in regard to the report of the Executive Committee?

Dr. E. Fletcher Ingals: I move that the report be accepted and adopted. Seconded and carried.

The President: We will now listen to the report of the Committee of Arrangements by Dr. E. P. Bartlett, Chairman.

Dr. Bartlett presented the following report:

REPORT OF THE COMMITTEE OF ARRANGEMENTS.

Mr. President and Gentlemen: Your Committee of Arrangements would respectfully report that in arranging for this semi-centennial meeting of the Society, the Christian Church of this city was secured, with the auditorium as a place for holding the sessions of same and that the Sunday School room, which is beneath this main room, as a place for the exhibits. Correspondence has been had with the leading business houses, manufacturers of medicinal remedies, surgical instrument dealers, food products, etc., and spaces for the following have been assigned: Elgin Milking Co., Malt Diastase Co., H. K. Mulford Co., The G. F. Harvey Co., The Globe Manufacturing Co., Fairchild Bros. & Foster, Smith, Kline, French & Co., Sharp & Smith, Wm. R. Warner & Co., Imperial Granum Co., W. R. Grady Co., Horlick Food Co., The Maltine Co., The Searle Hereth Co., Park Davis & Co., Kress Owen & Co., Allen Hanburys, Keasbey & Mattison, Tilden & Co., Arend Drug Co, and Billings, Clapp & Co., and their exhibits have been arranged for your inspection. It will be to your interest to visit these exhibits between the sessions of the Society. A uniform price of twenty-dollars has been charged for each space.

Amount received from exhibitors.....	\$480 00
“ State Eclectic Society	
“ on R. R. Agent	5 50
“ advertisers (Dr. Griffith)	82 00

Total receipts\$567 50

DISBURSEMENTS.

Amount donated Christian Church	\$60 00
“ M. E. Church, including	
janitor	10 00
Amount paid R. R. agent	17 00
Amount paid for Treasurer's assistant..	6 00
“ “ postage	2 50
“ “ buttons and express on	
“ “ same	15 10
“ “ blue prints	5 00
“ “ music	14 00
“ “ signs	3 00
“ “ hauling and storing chairs	5 00
“ “ watchman	6 00
“ “ telegram, Allen & Han-	
bury's, Ltd.....	51
“ “ rent of water cooler.....	35
“ “ ice.....	40
“ “ janitor, Christian Church.	5 00
“ “ electrician, M. E. Church.	1 25
“ “ orchestra at the banquet..	25 50
“ “ postage (Griffith)	50
“ “ stenographer and type-	
“ “ writer	15 00
“ “ printing (Phillips Bros.)..	48 25
“ “ clerk (Griffith)	5 00
“ “ postage on invitations ...	50 00
“ “ extra envelopes	45

Total expense\$295 81

Total receipts567 50

Balance.....\$271 69

The Sunday School room of the First Methodist Church, corner Fifth and Capitol Avenue, has also been secured for the illustrated lecture of skin diseases, by Dr. Blake Baldwin, and said lecture will be given immediately after the close of the session on Wednesday evening, which will enable members of the Society to pass a pleasant hour between the time of adjournment and the banquet. The banquet will be given in the Leland Hotel at 7:45 P. M., Wednesday. Tickets for same are in the hands of the several members of the Committee of Arrangements, who will see that all members of the Society are given a chance to purchase as many of them as they desire. Price of ticket is one dollar. The program for the banquet has been made an interesting one, and several of the most noted of the elder members will respond to toasts, covering the history of the State Medical Society, with reminiscences of early days in its history. Tuesday evening the President's address will be given in the auditorium of the Christian Church. Music as been provided for the occasion.

The address of Section Three, Dr. A. C. Cotton, of Chicago, will follow the address of President Moyer.

Announcements will be made daily on matters of interest to the members of the Society.

E. P. Bartlett, Chairman.

The President: You have heard the report of this committee. What disposition will you make of it?

Dr. John H. Hollister: I move that it be accepted and adopted. Seconded and carried.

The President: The next order is the report of the Committee on Registration, by Dr. Kreider.

Dr. George N. Kreider: Mr. President—There is not a great deal to say under this head. For several years the plan of registering in advance has been in vogue, and I am happy to say today that a larger number than ever before have registered in advance, approaching three hundred members. It might be well to mention the fact that the Society during the past year has increased in numbers about forty per cent. (Applause.) The Society has now 675 actual paid-up members. This is 150 more than it has ever had before, and 225 more than we had one year ago.

On motion, the report was accepted.

There being no miscellaneous business, the General Session, on motion, adjourned until 1:30 P. M.

SECTION ONE—FIRST SESSION.

Chairman, Dr. H. C. Mitchell, Carbondale; Secretary, Dr. Charles D. Center, Quincy.

Dr. A. C. Corr, of East St. Louis, delivered the address of this section. He selected for his subject, "Medicine or Surgery: Are they Separate? If not, which is the Science, which the Specialty?"

The address was discussed by Drs. Marcy, Brown, Henry, Percy, Will, Nelms, and the discussion closed by Dr. Corr.

Dr. James Brayshaw, of Berlin, read a paper on "Chronic Gastritis."

Dr. S. E. Munson, of Springfield, read a paper entitled "Our Milk Supply: Some Observations at Home and Abroad," which

was discussed by Drs. Van Hook, Reed, Norbury, Kirby, Ochsner, Miller, Brown, Allaben, Corr, and the discussion closed by the essayist.

Dr. J. W. Kelly of Springfield read a paper on "Nephritis, with Report of Three Cases," after which the Society adjourned until 1:30 P. M.

FIRST DAY—AFTERNOON SESSION.

The Society reassembled at 1:30 P. M., and was called to order by the President.

After some announcements by the Secretary, the reading of papers in Section One was continued.

SECTION ONE—SECOND SESSION.

Dr. J. T. McAnally, of Carbondale, read a paper entitled, "Is Pneumonia Contagious?"

Dr. N. S. Davis, Sr., of Chicago, read a paper on "The Evils Resulting from the Naming of Diseases for Individuals."

This paper was discussed by Drs. Moyer, Ferrell, Hollister, Snell, Corr, Pitner, and the discussion closed by Dr. Davis.

Dr. Frank P. Norbury, of Jacksonville, read a paper on "Diagnosis of Tumors of the Spinal Cord and its Membranes."

Discussed by Drs. Patrick, Church, and the discussion closed by the essayist.

Dr. Hugh T. Patrick, of Chicago, contributed a paper on "Everyday Headaches," which was discussed by Drs. Sharp, Ferrell, and in closing, by the essayist.

Dr. John H. Hollister, of Chicago, read a paper on "California as a Health Resort."

Dr. H. C. Mitchell, of Carbondale, read a paper entitled "The Extreme Mildness of the Epidemic of Smallpox," which was discussed by Drs. Matthews, Murray, Hollister, Ryan, Bowe, McAnally, Davis, Essick, Grinstead, Stewart, and the discussion closed by the essayist.

Dr. Archibald Church, of Chicago, followed with a contribution entitled, "A New Treatment for the Opium Habit," which was discussed by Drs. Dewey, Pettit, Brown, Black, Percy, Roskoten, and, in closing, by the author of the paper.

Dr. M. S. Marcy, of Peoria, read a paper on "Complications and Sequelæ of Scarlet Fever."

It was moved that all other papers on the program of this section be considered read in abstract, and referred to the Publication Committee. Carried.

FIRST DAY—EVENING SESSION.

The Society reassembled at 8 P. M. at the Christian Church, and was called to order by the First Vice President, Dr. J. T. McAnally, of Carbondale.

The President, Dr. Moyer, was introduced, and then delivered his annual address. He selected for his subject, "The Tendencies of Modern Medicine."

Dr. Arthur C. Cotton, of Chicago, followed with the address of Section Three. He selected for his text Jeremiah XXXI, verse 15: "Thus saith the Lord: A voice was heard in Ramah, lamentation and bitter weeping; Rachel weeping for her children, refused to be comforted for her children because they were not."

Adjourned.

SECOND DAY—MORNING SESSION.

The Society met at 8:30 A. M., and was called to order by the President.

The Secretary announced the following as the members of the Nominating Committee:

CITY.

Alton Medical Society—G. E. Wilkinson.
 Cairo Medical Society—J. C. Sullivan.
 Chicago Pediatric Society—A. C. Cotton.
 Chicago Society of Internal Medicine—J. H. Hollister.
 Chicago Surgical Society—E. H. Ochsner.
 Chicago Orthopedic Society—W. Van Hook.
 Chicago Laryngological Society—E. F. Ingals.
 Chicago Academy of Medicine—H. T. Patrick.
 Chicago Medical Society—N. S. Davis, Sr.
 Chicago Pathological Society—Emil Ries.
 Chicago Gynecological Society—A. Goldspohn.
 Chicago Ophthalmological and Otologic Society—W. H. Wilder.
 Chicago Neurological Society—A. Church.
 Chicago Medical Examiners—J. H. Coulter.
 Chicago Physician's Club—Denslow Lewis.

Chicago Therapeutic Society—Geo. F. Butler.
 Demonstrator's Association of Chicago—M. L. Harris.
 Decatur Medical Society—S. E. McClelland.
 E. St. Louis Medical Society—H. C. Fairbrother.
 Jacksonville Medical Club—P. C. Thompson.
 Medico-Legal Society of Chicago—Henry F. Lewis.
 North Chicago Medical Society—C. S. Bacon.
 Ottawa City Medical Society—J. W. Pettit.
 Peoria Medical Society—O. J. Roskoten.
 Quincy Medical and Library Association—J. R. Christie.
 Scandinavian Medical Society of Chicago—A. I. Bouffleur.
 Twin City Clin. Association of Champaign and Urbana.—C. B. Johnson.

COUNTY.

Adams County Medical Society—H. P. Beirne.
 Clay County Medical Society—E. P. Gibson.
 Champaign County Medical Society—J. C. Dodds.
 Crawford County Medical Society—C. Barlow.
 DeWitt County Medical Society—Wm. E. McClellan.
 Fulton County Medical Society—J. E. Coleman.
 LaSalle County Medical Society—J. F. Dicus.
 Macoupin County Medical Society—A. C. Corr.
 McDonough County Medical Society—S. C. Stremmel.
 McLean County Medical Society—E. A. Sargent.
 Morgan County Medical Society—Edward Bowe.
 St. Clair County Medical Society—E. P. Raab.
 Sangamon County Medical Society—J. N. Dixon.

Scott County Medical Society—James Miner.

Tri-County Medical Society—F. S. Diller.

Wabash County Medical Society—R. J. McMurry.

Warren County Medical Society—F. E. Wallace.

Winnebago County Medical Society—J. E. Allaben.

Will County Medical Society—F. W. Werner.

Pike County Medical Society—L. J. Harvey.

DISTRICT.

Aesculapian Society of the Wabash Valley—W. L. McLane.

Brainard District Medical Society—J. L. Lowrie.

Capital District Medical Society—E. J. Brown.

District Medical Society of Central Ill.—C. M. Bowcock.

Fox River Valley Medical Association—Frank H. Jenks.

Galva District Medical Society—M. T. Ward.

Iowa and Illinois Central District Medical Society—G. L. Eyster.

Medical and Surgical Society of Western Ill.—H. W. Chapman.

Military Tract Medical Association—J. A. Schreck.

North Central Illinois Medical Society—Wm. O. Ensign.

Rock River Valley Medical Association—E. S. Murphy.

Southeastern Illinois Medical Society—Frank W. Goodell.

Southern Illinois Medical Society—H. C. Mitchell.

The report of the Committee on Publication was read by the Secretary, as follows:

REPORT OF COMMITTEE ON PUBLICATION.

To the President and Members of the Illinois State Medical Society:

Your committee has the honor to report that at the forty-ninth annual meeting held at Cairo May, 1899, the Society appointed a special committee to report on the advis-

ability of publishing the transactions in Journal form. This committee reported recommending as follows: that the transactions be journalized; 2nd, that the first issue shall be on or about July 1st, 1899, and continue thereafter on the first of each successive month; 3rd, that the costs of its publication shall not exceed the income of the Society, less other expenses; 4th, the permanent secretary shall be the editor. Report adopted. The ways and means of publishing same was referred to the Judicial Council with power to act. Acting under the instructions of the Judicial Council, the Publication Committee called for bids for printing one thousand copies of the Illinois Journal. Various printing houses responded, but the lowest was the Illinois State Journal Company, of Springfield, to whom the contract was awarded. By this contract this company agreed to print, bind, wrap and address one thousand copies of the Journal of forty-eight pages each for the sum of \$57.12 per month, or \$1.19 per page small pica type, two columns to the page to be printed on paper weighing one hundred pounds to the ream. For brevier type there is an additional charge of \$0.14 per thousand ems, additional copies of one hundred or more at \$3.00 per hundred.

It was supposed that a forty-eight page Journal would be sufficient, but your committee has found it necessary to occasionally add more pages because of additional good reading matter, that it was found absolutely necessary to utilize.

One of the primary objects of publishing the transactions in Journal form was to infuse greater activity in the existing medical societies and encourage the formation of new ones. It became necessary to devote a great deal of space to the reports of the various societies which have held meetings during the year. This practice cannot be too highly commended for it has been clearly demonstrated in this short time that the physicians of this State are taking a much greater interest in society work than heretofore. The various other departments are on the lines laid

down by the Judicial Council, and will meet with your approbation. The total cost of printing to date is \$805.75. The average number of copies printed each issue was 1,250, the extra numbers being used for missionary purposes. The committee now feels free to state that it believes that the question of increasing the membership of this Society has been solved by the publication of this Journal. The average annual increase of members prior to 1899 was fifteen. In the last year there has been added to the membership two hundred and twenty-five. This tremendous success is unquestionably directly due to the influence of the monthly publication, being an increase of 40% in less than one year.

Your committee begs further to report that it caused 1,200 programs to be printed at a cost of \$20.00, a copy of which has been mailed to every member of the Society.

Your committee further reports that it sold a copy of the '89 Transactions to the Medical Book Company of New York at \$1; also to the U. S. Surg. Genl., the Transactions of '95, '96, '97 and '98 at \$4.00, all of which has been turned into the general treasury.

Respectfully submitted,

E. W. Weis, Chairman.

Geo. N. Kreider,

H. N. Moyer.

Publication Committee.

On motion, the report was adopted.

The report of the Treasurer was called for and was deferred temporarily until the arrival of the Treasurer.

The President: The next order is the report of the Committee on Medical Societies, Dr. C. W. Hall, Chairman.

REPORT OF THE COMMITTEE ON MEDICAL SOCIETIES.

Mr. President: Our report will be brief. Your Committee on Medical Societies begs leave to report that five new societies have been formed during the year: Jo Daviess, McHenry, Pike, Sangamon and Schnyler Counties. Since coming to this meeting seven new societies have been promised in

Jackson, Montgomery, Logan, Moultrie, Carroll, Piatt and Christian Counties.

Glancing at this map, which represents the medical organizations in the State, you will see that we are fairly well organized at the present time. The squares represent city societies, the circles county societies, and the triangles district societies. I wish I could represent the territory covered by these district societies better than I can, then you would see how much more thoroughly we are organized. We find it difficult to organize societies by letters. We have found by experience that personal contact is much more efficient for this work. As I have said, we have organized five counties during the year, and virtually seven since we have come to this meeting, and the only reason we cannot organize more is because we cannot find members from these counties that have no societies.

If you will pardon me, I will speak of one fact which I have learned. I find, for instance, that some city society has one or two doctors from some county that has no medical organization, and I find that these physicians are generally satisfied with the condition of affairs. I simply urge all physicians who belong to this Society, who live in a county that has no county organization, that even though they may feel satisfied with their condition, it is a duty they owe to the medical profession of this State not to be satisfied until they have a county organization of their own. I do not believe it is to the credit of any doctor to come to this Society year after year without belonging to a county organization in his own county. If there is no county organization, he should take steps to organize one. I find that the great difficulty in the matter of medical organization is that the physician who organizes waits until he has every doctor in the county at the preliminary meeting. The best societies in this State have been organized by three or five members, and there is no excuse for any doctor living in any county to be without a county organization. One live doctor can organize any county. I know this to be true. I would like to give this word of

advice: There is a doctor here from Marion county, and I cannot find him. If he is here, I will say this to him: He can go home, get two or three colleagues with him, and they can meet and organize a county medical society. Five are as good as fifty for this purpose. They can select their officers—president and secretary—and then appoint a committee of three on membership, and a committee on constitution and by-laws, and then adjourn for six weeks or two months before holding a regular meeting. In the interim the committee on membership can go to work and by the time the regular meeting is called, the committee can have all the doctors in the county together. I simply say this because I have not the opportunity of seeing each one individually. Do not wait until you have a crowd to go to the meeting. You do not need it. Four or five progressive men, if they start a county society, will soon have the rest of them as members.

Another point I would like to refer to is in regard to personal work in this matter. I cannot help but feel that a good many doctors in this Society, as I have hinted at before, are too well satisfied with their present condition. I do not think any doctor should be satisfied until his brethren are a unit with him.

I hope during the coming year that when some of the physicians get a letter from the Committee on Medical Organization, they will simply feel it is their duty to carry out the request of that letter. For instance, here is the county of Livingston that has something like fifty regular physicians in it, and yet it has no medical organization. It is hard for the doctors from Egypt or Jo Daviess county to organize. The doctors from LaSalle county, or from some neighboring county, can go in where they know the doctors and put them at work. You will find before the next year rolls around that every doctor in a county that has a society is going to be asked to do some missionary work in this direction. When we make this a personal work, we will get the State very efficiently organized. It seems to me, that the medical profession is

becoming more and more educated on this matter. We find it less and less difficult to organize societies.

There is another matter in regard to why we should organize that will be brought up later in this meeting. We feel more and more the need of thorough organization, and in counties where the doctors do not feel that they can carry on scientific sessions they can at least carry on political organizations. I believe it should be the object of this society to have in every county a central committee which corresponds with that in politics, consisting of four members, that will be elected by this county central committee, to keep in touch and harmony with the committee on Medical Legislation, so that whenever any matters of importance come up the committee on legislation can simply correspond with each county in the State, and in this way we can bring a powerful influence to bear upon any needed legislation. I thank you.

The President: You have heard the report of the Committee on Medical Societies. What will you do with it?

E. Fletcher Ingals: I move the acceptance and adoption of the report as presented. Seconded and carried.

The President: We will now listen to the report of the Committee on Medical Legislation, Dr. J. W. Pettit, Chairman.
REPORT OF THE COMMITTEE ON MEDICAL LEGISLATION.

J. W. Pettit: Mr. President—Your Committee on Medical Legislation has a very short report to make. Inasmuch as there was no session of the legislature during the last year, we have done nothing in a practical way. Your committee would advise that no further attempts be made at legislation until the medical profession can decide what it wants, and present a more solid front than it has been able to do heretofore. If the committee has failed in what might seem to be the proper discharge of its duties, it is because the profession was not united as to what it wanted. The enemy presented a solid front, not only in numbers, but in money as well. We have had to fight the enemy, and the situ-

ation was embarrassing to the committee, and the result not satisfactory to us or to the profession. We do not want it understood, however, that we have not accomplished anything. We have accomplished more in the passage of the present act than the profession are ready to believe, as can be easily demonstrated. We have now a splendid foundation, but, as I have previously said, we believe that no further attempts should be made to change the medical practice act until we have the profession more thoroughly organized. At the preliminary meeting, held here on Monday, it was decided that the matter be left entirely to the new Committee on Medical Legislation, and that efforts be made to organize the profession.

There is one thing I think we can say, after several years' experience, that it is not the fault of the legislature that we do not have better medical laws, but that it lies primarily with the medical profession itself, and whenever the medical profession will agree on what it wants, and that request is reasonable, as it certainly will be, we can get what we want and ought to have. We would urge that no further attempt be made to amend the present medical practice act until the profession is thoroughly organized, and has at least ten leading physicians in each senatorial district, who will agree with ten more in every other as to just what is wanted, so that there will be no division in our own ranks.

The President: This report is before you. What disposition will you make of it?

Dr. N. S. Davis, Sr.: I move that the report be adopted. Seconded and carried.

Dr. George N. Kreider then read his report as Treasurer, as follows:

REPORT OF THE TREASURER.

George N. Kreider, Treasurer, in account with the Illinois State Medical Society, for the year 1899.

Dr.

To cash on hand May 17, 1899.	\$719 65
Received as per Book No. 1..	294 00
Received as per Book No. 2..	297 00
Received as per Book No. 3..	156 00
Received as per Book No. 4..	177 00

Received as per Book No. 5..	222 00
Received from Dr. Weis, Sec..	27 00
Received from reprints, sale of Journals, etc.....	18 75

Total	\$1,911 40
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Voucher
No.

Cr.

1 Legislative Committee ...	\$200 00
2 Legislative Committee ...	50 00
3 Stenographer	97 45
4 E. W. Weis, printing.....	11 85
5 Telegrams, telephones, ex- pressage	5 00
6 Index book	1 35
7 Engravings	13 50
8 E. W. Weis, printing....	4 00
9 Stenographer.....	7 57
10 Illinois State Journal	486 91
11 Illinois State Journal	30 50
12 Illinois State Journal	331 04
13 Secretary's postage, etc...	42 94
14 Treasurer's postage, etc...	51 55
15 New seals	4 50
16 Programs for annual meet- ing	24 25
17 Secretary's honorarium ...	350 00
18 Treasurer's honorarium ...	50 00

Total	\$1,762 41
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Cost of printing and posting 11

issues of the Journal..... \$805 75

Average number of Journals printed each issue, 1,250.

Balance from year 1899.....	\$148 99
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Advance registration for year 1900:

Received as per Book No. 1..	327 00
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Received as per Book No. 2..	336 00
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Received as per Book No. 3..	330 00
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Received as per Book No. 4..	180 00
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Received from Committee on Arrangements, Springfield ..	271 69
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Received from Galva District Society for Legislative Com- mittee	5 00
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Received from Winnebago Co. Society for Legislative Com- mittee	20 00
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Total amount received up to May 23, 1900.....	\$1,613 15
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Paid out to Legislative Committee as per order of Society,
 May 16, 1900 276 00

Balance on hand May 23,
 1900 \$1,337 18
 Approved May 17, 1900.

J. T. McAnally, 1st V. P.

Weller Van Hook, 2d V. P.

On motion, the report was referred to the Auditing Committee.

Dr. John H. Hollister, of Chicago, presented the report of the Committee on Necrology and Biography, as follows:

THE ANNUAL REPORT OF THE COMMITTEE ON
 NECROLOGY AND BIOGRAPHY FOR THE
 YEAR ENDING MAY 15, 1900.

Gentlemen of the Illinois State Medical Society:

Your committee respectfully desire to submit the following as their annual report:

During the year, four of our older and most prominent members have died, namely: Dr. Samuel Craig Plummer, of Rock Island; Dr. Edward Lorenzo Holmes, of Chicago; Dr. E. W. Moore, of Decatur; and Dr. O. B. Ormsby, of Murphysboro. Each of these men have been eminent in their profession leading members of this Society, honored above most men as citizens by those among whom for long years they dwelled, and each of them bearing a conspicuous position as surgeons in our armies during the Civil war. They were honored in their lives, falling from our ranks full of years, and with lives of usefulness grandly completed.

We all regret their departure, and that, in our annual gathering, we shall meet them no more. It remains to place upon the record of our Society these expressions of our esteem, these simple tributes of affection in memory of our departed brothers.

The following brief biographical sketches are herewith submitted:

"Dr. Samuel Craig Plummer was born in Westmoreland county, Penn., April 10, 1821, and died at Rock Island April 30,

1900, aged 79 years. The following sketch of his life is taken from the Rock Island Argus of April 30, in which after paying an affectionate tribute to his memory, it adds the following:

Dr. Plummer had practiced medicine continuously in Rock Island, with the exception of the years he spent at the front and in a trip to the far west, since settling here in 1845. He was local surgeon at the time of his death for the Rock Island and the Rock Island & Peoria roads, having served the former corporation since it first entered this city. He stood high in the medical fraternity, by whom his writings in a number of magazines were widely read. He was a member of the American Medical Association, the Illinois State Medical Society and the Iowa and Illinois Central District Medical Association; also the Illinois Commandery of the Loyal Legion, the Society of the Army of the Tennessee, and John Buford post, G. A. R., and was a Royal Arch Mason. He served as a member of a committee which in 1894 located the battlefields in Chickamagua park. He was health commissioner under Mayor Blanding, was alderman from the Second ward in 1858-59, and served as president of the medical staff of St. Anthony's hospital, to which latter position he declined re-election on account of his advanced age.

Dr. Plummer is survived by his wife and five children, all the children being born of the first union. They are: Mrs. Anna P. Darrow, Mrs. G. M. Loosely and Miss Clara E. Plummer, of Beatrice, Neb., and Dr. S. C. Plummer, Jr., of Chicago.

Samuel Craig Plummer was born April 10, 1821, at Salem Cross Roads, Westmoreland county, Pa. The Plummers are of English descent. One or more branches of the family can now be found at Middlesex, but the American patriarch of the family, Frances Plummer, with Ruth, his wife, and several children, came to New England in 1633. The descendants of Francis Plummer have been represented in the colonial legislature and furnished a governor of New Hampshire and five were members

of congress. The parents of Dr. Plummer, Mr. and Mrs. John B. Plummer, were both born in Westmoreland county, Pa., and their ancestors settled in western Pennsylvania at an early day. Samuel received a common school education, after which he was in the preparatory department of Western Reserve college, in Ohio, for one year. Returning to Greenville, Pa., he was in the Greenville academy about two years. He then studied medicine three years under Dr. H. D. La Cossett. He also attended lectures at Cleveland Medical college, from which he graduated. He also received the ad eundem degree from the Western Reserve university of Cleveland, Ohio, and for 13 years previous to entering the army he practiced his profession in Rock Island.

Dr. Plummer enlisted as a member of the 13th Illinois Volunteers April 16, 1861, and was mustered with his regiment at Dixon, Ill., May 24, 1861, with the rank of major. By long, patient and thorough study, and subsequent practice, Dr. Plummer brought to his new position of army surgeon the full equipment and rich furnishment which were necessary to that position and its collateral possibilities. Being the ranking surgeon in the volunteer army, together with his social qualities, and his great executive abilities and devoted patriotism, he was conspicuously well fitted to fill the important and honorable positions to which, early in the service, he was called; and whether a regimental surgeon, medical director of the army of the eastern district of Arkansas, surgeon-in-chief of the first division of the 15th army corps, or medical director of the 15th army corps, he honored the service as much as the various grades honored him. And while these higher grades of the service were enjoyable to him, as it brought him into close and intimate association with many of our most prominent generals and commanding officials in all departments of the service, his fealty to his old regiment never faltered; and while his old boys were always scolding about him, that is those natures that are always chronic grumblers, at the same

time they would much rather take a dose of blue mass from him than whiskey and sugar from any of the assistant surgeons; while on his part he might be expected to mount his horse and ride three miles to the camp of the 13th to look at the tongue of some eighth corporal or high private, and then prescribe blue mass and see that it was taken, than to accept an invitation to dinner with some major general.

Dr. Plummer was in the thickest of the fighting in the south. He was in several of the more important and bloody engagements. He served his country nobly. Measured by the actual value of important services rendered, the unsurpassed, if approached, sanitary condition of his regiment during its full term of service, and his eminent capability in many higher positions as a surgeon, fully entitled Dr. Plummer to have carried home with him the stars of a major-general.

By the explosion of a shell on the 22d of May, 1863, during the siege of Vicksburg, Dr. Plummer lost the hearing of his right ear.

On being mustered out of the military service, Dr. Plummer returned to his family in Rock Island, and resumed the practice of his profession, in which he has since been constantly engaged. Oct. 17, 1844, Dr. Plummer married Julia Hayes, of Burg Hill, Ohio. She died Oct. 6, 1872. They had five children. Dr. Plummer married June 9, 1874, Sarah Moore Dawson, at New Wilmington, Pa.

In 1850 Dr. Plummer with a party of Rock Islanders, made an overland trip into the far west in search of gold, going as far as the Pacific coast. He remained but a year, returning by way of the Isthmus of Panama.

DR. E. L. HOLMES.

Dr. Edward Lorenzo Holmes, for more than forty years a member of this Society, died on Feb. 12, 1900, of pneumonia. His long term of membership covered the period of greatest growth of the Society and of intensest activity in the profession. Up to recent years when old age compelled

him to take his well earned rest, he was an eager participant in that growth and activity. His name is indelibly associated with Rush College and the Presbyterian Hospital, and he has left an enduring monument in the Illinois Charitable Eye and Ear Hospital which was founded largely through his efforts and in part supported out of his private means, until the State accepted its care.

Dr. Holmes was born in Massachusetts in 1828, and graduated from Harvard Medical Department in his 26th year. After a term of internship in the Massachusetts General Hospital, he spent a year at the University of Vienna and there met the lady whom some years later he made his wife. In 1856 he settled in Chicago, the following year he became a member of this Society, and in 1858 he set on foot the movement which created the Illinois Eye and Ear Hospital. In 1860 he became lecturer on ophthalmology in Rush, some years later professor of the same branch, and in 1890 president of the college—an office that he resigned on his 70th birthday.

In 1863, during the fierce Tennessee campaign, the National government appealed to the medical profession to lend aid to its overworked surgeons. Dr. Holmes was one of those who responded, and he served as volunteer emergency surgeon.

Almost the pioneer of ophthalmology in the West, he was for a third of a century recognized as its leading practitioner and up to his death as its wise and safe authority. He put his whole energy into that department of medicine, because the needs of the blind appealed strongly to his humane heart. That was why he founded an infirmary which grew to be a State hospital. His work as an oculist was safe and conservative, and he held fast to what was tried and accepted; but he kept on conversant with medical literature so that no phase or development of medical science escaped him. In former years he wrote much for the medical press. He was an excellent French and German scholar, and his general culture was almost as wide as his sympathies; which were universal.

Personally, Dr. Holmes was simple, earnest and exceptionally humane and benevolent. Professionally, he was ideal. A code of ethics sounds cold and formal, but when realized in actual life as he realized it is seen to be a warm vivifying influences moving a united profession to the benefit, not of self, but of suffering humanity. His three score years filled with honorable and useful work constitute a splendid legacy for his children and a worthy example to the medical profession.

DR. E. W. MOORE.

Dr. Moore who had been in continuous medical practice in Decatur for forty-three years, except when absent as a surgeon during the civil war, died May 19, 1899, aged 77 years and 5 months. For some years Dr. Moore's health had been gradually failing and for the last three years his winters had been spent in Texas, and at the home of a daughter in Claybourne, Texas, he died. His remains were brought back to Decatur, where with most impressive ceremonies, and attended by almost the entire citizenship of that community they were laid away to rest.

To the Decatur papers of that date, and especially to our worthy and veteran friend, Dr. Ira N. Barnes, who for more than thirty years was his intimate associate, we are indebted for the following biographical sketch:

Dr. Moore is the descendant of the earliest American family to settle in Illinois, his father, James Moore, having been the first white male child born of American parents within the limits of the State. Dr. Moore's mother was the daughter of Col. William Whiteside, one of the pioneer settlers of Monroe county.

Dr. Moore was the seventh of a family of ten children and was born near Waterloo, in Monroe county, on December 7, 1821. His boyhood was spent in his native county. He attended school at Waterloo and for a time taught school. In the fall of 1849 he began the study of medicine at Columbia College in Monroe county. He received his medical education in the

medical department of the St. Louis university, now known as the St. Louis Medical College. He graduated from this institution in March, 1853. In 1854 he began the practice of his profession at Carlisle, Ill., and became a resident of Decatur in March, 1856. During the war of the rebellion he offered his services to the government and was commissioned a surgeon of the 115th Illinois regiment. His regiment was attached to the army of the Cumberland, and during his connection with it served in Kentucky and Tennessee. After seven months service he resigned on account of ill health and resumed his practice in Decatur.

The deceased was married in October, 1854, to Miss Anna B. Lockwood, a native of Philadelphia and a daughter of the Hon. Daniel C. Lockwood. She was connected with the Cummins family, one of whose members was Bishop Cummins of the Protestant Episcopal Church, and was a cousin of Gen. Henry K. Lockwood, of the United States regular army. Her death occurred in July, 1876.

Dr. Moore was originally a whig and supported Henry Clay in the presidential election of 1844. He voted for Fremont in 1856 and had voted for every Republican presidential candidate from that time to the present. He had been a member of the M. E. Church for a number of years.

Dr. Moore was a life long Methodist and was a licensed preacher in that church. He officiated at marriages and was often called upon to assist the pastors at the funerals of old residents of the city. He was widely known throughout the county. He at one time owned a good deal of real estate in Decatur. Much of his money he spent on other people. To several young persons he gave money to secure an education and was always liberal with his money and was ready to give freely to any worthy cause. The fact that Dr. Moore was so closely identified with the early settlement of the county and on account of his many admirable traits of character he was endeared to many persons.

DR. O. B. ORMSBY.

The death of Dr. Orange Butler Ormsy, of Murphysboro, deprives us of another of the prominent members of this Society. He had been intimately associated with the medical men of our state since the date of his graduation, at Rush in 1858. He was born at Greenville, Ill., Feb. 22, 1836. In 1861, three years after graduation, he entered the army as a member of the 18th, Regiment of Illinois Volunteers. He was soon promoted to the rank of major, and continued in the service until 1864, when he was honorably discharged for disability. As a citizen of Murphysboro he was prominently identified with its interests and lived and died, one of its most honored men. His relations with medical societies were numerous, and in them all he was one of the leading spirits. He was a member of the staff of St. Andrews Hospital, of Murphysboro; member of the Southern Illinois State Medical Association. Railway surgeon, Southern Illinois, Army and Navy Medical Association, Illinois State Medical Society, etc.

He had suffered for years with aortic valvular disease, following acute rheumatism and died at last after four days of severe illness from cerebral inflammation at the age of 63 years.

Your committee has learned since the opening of the present session of the death of Dr. Daniel S. Jenks of Plano long and prominently identified with this Society, whose burial services were held four days ago, and also of the still more recent death of Dr. Edgar Bolles, of Macomb.

Biographical sketches of the lives of these men will be reported in due time.

All of which is respectfully submitted.

John H. Hollester, Chicago,

O. B. Will, Peoria,

E. J. Brown, Decatur.

Committee.

The President: If there is no objection, this report will be received and spread upon the minutes.

No objection being offered, it was so ordered.

Continued next month.

The Illinois Medical Journal

PUBLISHED MONTHLY.

Official Organ of the Illinois State Medical Society.

Committee on Publication:

E. W. WEIS, M. D., Chairman, Ottawa.

G. N. KREIDER, M. D., Springfield.

E. J. BROWN, M. D., Decatur.

All communications should be addressed to E. W. WEIS, Secretary, Ottawa, Ill.

All remittances for subscriptions should be sent to Dr E. J. Brown, Treasurer, Decatur, Ill.

The Society does not assume responsibility for any statements or opinions published in this journal.

Entered at the Postoffice at Springfield, Ill., as second-class matter.

Springfield, Ill., July, 1900.

NOTICE.

During my absence in Europe attending the International Congress of the Medical Press and the International Medical Congress, President George N. Kreider will assume the editorial management of the Journal. All communications should be addressed to him at Springfield for the coming two months.

E. W. Weis,
Per Secretary.

TYPHOID FEVER DURING THE RECENT SPANISH-AMERICAN WAR.

The oration on State Medicine given by Prof. Victor C. Vaughan before the recent meeting of the American Medical Association is of special interest, not only to the army surgeon, but to the general practitioner as well, from the fact that it elucidates quite clearly some heretofore unsettled ideas in regard to typhoid fever.

A board consisting of Drs. Vaughan, Reed and Shakespeare was appointed by the surgeon general in 1898 to study the causes for the existence and spread of typhoid fever in the national encampments, and to suggest means for its abatement.

Vaughan's oration is a summary of the conclusions reached after the board had carefully inspected all the camps and had spent eighteen months in a thorough study of the medical records of all the cases which occurred. The conclusions are as follows: Every regiment developed typhoid fever; 21 per cent. of the soldiers contracted the disease, in all, 9,660 cases, or about one-fifth of the army; of these 713 died, or about 7 per cent.; out of every ten deaths from all causes, eight died of typhoid. The army surgeons correctly diagnosed only a little less than half the cases; many cases were called malaria; a few dengue. More than 90 per cent. of the volunteer, and probably all of the regular regiments developed typhoid within eight weeks after assembling in the encampments; it occurred in Northern as well as Southern camps; in camps well located and badly located as regards water supply, drainage, etc. Typhoid being so widely distributed in this country as an epidemic disease we would normally expect to find in every 1,300 men collected together for a period of two months, at least one or more cases of the disease develop, regardless of the surroundings; the infected ones bringing with them in their bodies the germs either in a latent condition or in the process of incubation.

The investigations confirm the doctrine of the specific origin of typhoid, and disprove both the miasmatic theory and the theory of the transformation of the colon bacillus into the virulent germ, as is now believed by many French, English and American army medical officers.

The typhoid in these camps was disseminated by personal contact of infected persons with the non-infected, and the transference of the excretions of an infected individual through the agency of clothing,

bedding, tentage, also on the shoes of the soldiers which infected the dust of the camp, and from the carrying of fecal matter on the feet of flies and probably also in their digestive organs. A camp, changing its location or even going on a sea voyage is not relieved of its infection; only by the thorough disinfection of all clothing, utensils, tents, etc., by immediate disinfection and covering of all excretions, by avoiding overcrowding of tents, by insisting upon the removal of the outer clothing at night, and the sleeping upon raised beds, can the dangers be lessened.

Lastly the board recommends that, in permanent camps where water carriage can not be secured for removal of fecal matter, that it should be disinfected by placing in galvanized iron troughs containing milk of lime and removing this daily by means of the portable odorless excavator. B.

THE HABIT OF CASE-TAKING.

It is a sad reflection, but nevertheless true, that a very small proportion of the real scientific work of American physicians emanates from those living outside of the large cities. Very few country physicians realize the great opportunity they have for advancing scientific medicine, if they will only take the trouble to do so. Although they lack the incentives of their more fortunate city brothers, such as the frequent attendance at medical societies, where they can measure themselves with others, learn their short-comings, have their pet theories ruthlessly exploded, or feel that their superior work in any one line is appreciated, and, although they do not have the advantages of large hospitals, of frequent autopsies, or of extensive laboratory investigations, yet they do have that greatest of all advantages, viz.: the opportunity to

scientifically and thoroughly study the clinical manifestations of disease at the bedside as recorded day by day, if they have learned to observe and absorb what they see.

Good scientific work can only be done by physicians who make complete notes of their cases; this habit should be cultivated at the bedside and in the office, for it is one of the most valuable aids to clinical study; it makes one form a habit of thoroughness in examining cases; it teaches him what to look for, and brings before his mind each factor of a case in orderly succession; the memory is strengthened and the mind developed by this habit of carefully reflecting upon every feature of a case, and after a reasonable length of time the physician finds that he has accumulated a rich store of statistics, facts, original observations and effects of treatment, from which he can at any time abstract as his contribution to medical literature most excellent and interesting productions. Why must the general practitioner when asked to prepare a paper for his local society, on typhoid fever, for example, give us a rehash of the etiology, pathology, bacteriology, symptomology and treatment as found in all the textbooks? Of how much more value would his paper be if he would tell us in how many of one hundred successive cases of that disease in his practice he had observed the rose spots, giving the day of their appearance and disappearance; the frequency of diarrhoea and constipation; the success of the Ehrlich diazo test; the effect of special lines of treatment; the number of times he had caused cynosis by coal tar products; the complications he met; his mortality, etc. Or is it necessary for us to always be compelled to listen to a paper upon "The Conduct of Normal Labor,"

when there are two or three really original papers at the end of the program which must be read by title on account of the lack of time?

Medical literature suffers most from those good observers who cannot or will not write, and from those poor observers who have the *cacœthes scribendi* and are always writing. Coupland has said: "Who can estimate how much we have lost from the fact that generations of men gifted with powers of acute and shrewd observation have passed away without leaving one record behind them? Think not that it is the hospital physician or surgeon alone who can advance the progress of medicine. There is not a practitioner who could not aid this great work. But he can only add to it with efficiency if he has faithfully recorded his observations, and does not trust to the general and vague impressions of unassisted memory. Therefore on all grounds, personal to yourselves and general for medical science, so engrain this habit within you, that it becomes a second nature." B.

THE LEGISLATIVE COMMITTEE.

Every Effort Should be Made to Secure a More Complete and Effective Medical Organization.

The Committee on Medical Legislation of the Illinois State Medical Society held its first meeting in Chicago on Monday, June 18, 1900, at the Great Northern Hotel. C. E. Black, E. F. Ingals, J. A. Egan and G. N. Kreider, all the members were present. J. W. Pettit, formerly Chairman of the Committee attended the meeting by special invitation. The Committee thoroughly canvassed the whole situation and laid out a line of work for the ensuing year.

As physicians the people look to us as

the natural conservators of the public as well as the individual health. The moral responsibility of the public health is upon us. The first suggestions of proper health laws must come from physicians. Looking at this great responsibility in its true light, we should form high ideals. We should not be satisfied with small or moderate things, nor should we strive to attain the imaginary, or espouse the Utopian. Above all we should be practical. We should not suggest that which it is evidently impossible to attain. It is probably fortunate that it is necessary for us to convince the laity of the importance of a law before it is enacted, otherwise many more visionary measures would encumber our statute books. As physicians we should carefully study the needs of our several communities. We should keep thoroughly alive to the scientific and practical progress of the times. We should seek to derive the aid for our state and local communities which every true development in scientific progress will afford. This is an age of progress, yet we must realize that many things are still unproven and in the experimental stage.

This Committee is anxious to advocate with all possible energy everything which will be for the improvement of the public health and give to individuals the highest qualifications in their medical attendants. The quacks and frauds of all kinds have organized. Of course at best they can never attain more than a heterogeneous and disorganized body. Yet we must not be blind to the fact that there exists in our State a large number of purely commercial doctors, practicing contrary to the expressed and implied intent of the law. It is a sad fact that some of them have diplomas from reputable medical schools. Many others have no diplomas, and yet go about imposing on the sick. A sentence from one of the recently distributed circular letters urging physicians to join this motley crowd of the unqualified and poorly qualified may be interesting. The paragraph reads as follows: "You are doubtless aware of the great injustice which is daily done a very large number of compe-

tent licensed and unlicensed practitioners, and the continued persecutions and prosecutions brought against them by so-called boards of health and others. This continued filching of rights has been industriously carried on for years, and until that able and energetic advocate of right, liberty and justice, the National Association of Liberal Physicians, Surgeons and Dentists entered the field to conserve the right of liberal practitioners. The medical trust had now met a foeman who was prepared to successfully defend the rights of its members and it proposes that all people shall be permitted to employ the physician of their choice at such times as they desire, without regard to the particular system or school of which said practitioner is an advocate. This is the first time in the history of liberal medicine that the practitioners thereof have had an opportunity to become affiliated with an effective national organization: the result is, we are getting a fine membership from the ranks of competent liberals from every section of the United States."

The special watch-word of this crowd of destructionists is, "Equal justice to all, and special privileges to none." The true rendering of their watch-word should be, "Injustice to all the sick by those without special education or moral sense." We are glad to know, however, that a number of the most prominent movers in this effort to break down proper qualification and training and do away with all laws which protect the sick, infirm and dependent, are either fugitives from justice, or under bond to appear and explain their misdeeds in the courts.

Thus we see that one of the duties incumbent upon the conscientious physician as well as the Legislative committee is the protection of existing medical legislation.

There are many things which demand the attention of this committee in the way of legislation for the improvement of our public health laws, but it was unanimously agreed that the first thing which should receive the committee's attention is a more thorough and far-reaching organization of

the profession throughout the state. Little or nothing can be accomplished for progressive legislation until a considerable body of the best element of the profession can agree upon the measures desired. There is undoubtedly a great awakening throughout the country as to the need of more adequate health laws. We would respectfully and seriously appeal to all conscientious practitioners to assist in perfecting organization. Let us all put aside selfishness and unite in an effort to build up substantial protection to the public health. The desire to rob the sick of their money and give nothing in return is the role of the Charlatan and Quack. It is born and bred in that selfishness and immorality which inspires the gambler to want everything, but give nothing.

There are many subjects which are demanding solution. Among these might be mentioned the more complete organization of local boards of health and better arrangements for their co-operation with the State Board of Health; regulations regarding our water supplies; regulations regarding care of tuberculous patients; provision for separating the administration of the state health laws from the medical practice act, and having a state board of medical examiners aside from the Board of Health; ample provision for elevating the standard of qualification and preventing of illegal and unqualified practice. These are some of the problems which are awaiting solution. The solutions must be suggested by the medical profession. Whenever the legislature finds that the profession is united on a measure it will soon be made the law. As long as the profession remains ununited, maintaining almost as many ideas as there are individuals, just so long will we be without proper health laws.

After thoroughly discussing all these problems, the committee decided to use its best efforts toward better organization and in the meantime to discover what health measures were uppermost in the minds and hearts of the profession and then advocate such measures. The ideas of no one man should prevail. The best measure will be

the one which is a composite of the opinions of a hundred or hundreds of thoughtful, intelligent physicians.

The committee sees many things which should be accomplished, but before undertaking them it must be able to see that a considerable number of physicians in the state will co-operate with the committee. Such co-operation with a committee is absolutely essential to success.

We believe that every physician should be a member of a local medical society. That he should give active support to his local society and see to it that it is well represented in the State Society. He should carefully study the existing laws. At least one meeting each year in every local society should be devoted to a study of our health laws and the consideration of propositions for their improvement. A committee should be appointed in each local society to co-operate with the Legislative committee of the State Society in advocating improvements in our health laws. Every society should be constantly on the alert to assist the state and local boards of health in enforcing existing laws. While the illegal practice of quacks and frauds makes little difference personally to the educated and qualified physician he should see to it that the sick, dependent and irresponsible are not imposed on by them.

As chairman of this committee I would like to receive suggestions and opinions from as many physicians in the state as possible regarding our present health laws, including the medical practice act, and desirable additions and changes. I know that I voice the feeling of every member of the committee in this desire. Let us all unite on some much needed measures and see that they are made into law. If we but put our shoulders to the task unitedly and energetically, any reasonable measure we ask for will meet the approval of the legislature. Individual opinion on minor points must give way to foundation principles. In the past too much time and energy has been wasted on unimportant details. If we make our

foundation broad and substantial the details will take care of themselves. Each one must consent to give up some of his personal preferences in order to secure measures on which all can unite. We must cease denouncing a whole measure because one or more parts do not meet our personal view. United we can make our state foremost in the Union and I believe it is the sincere wish of a large portion of the physicians in this state that Illinois should maintain the forward march which was begun so successfully. Let us take up these problems carefully and conscientiously, discuss them thoroughly and formulate proper measures for the protection and improvement of the public health.

Your committee is always ready and willing to listen to every suggestion. We are anxious to have all these problems thoroughly discussed.

Carl E. Black,
Chairman of Committee on Medical Legislation.

State Board of Health Items.

The State Board of Health was advised on the 19th inst., from Geneseo, that a person named George Lawbaugh, a resident of the city, had visited a small-pox pest house established two miles from the city, in defiance of the quarantine regulations established and remained with the patients for over half an hour and then returned to the city boasting of his action. Seemingly these steps were taken in order to show his contempt for the quarantine regulations. Mr. Lawbaugh is the father of the defendant in the case of Lawbaugh vs. the Board of Education, in deciding which the Supreme Court followed the opinion rendered in case Potts vs. Breen (167 Illinois) to the effect that an unvaccinated pupil could not be excluded from school unless in the case of emergencies of police power, it is necessary or reasonably appears to be necessary to prevent the contagion of small-pox.

The state's attorney was consulted by

the local health authorities but he expressed the opinion that there was no statute or ordinance covering the case. The Secretary of the Board in reply to the authorities of Geneseo, suggested that suitable ordinance be adopted by the city and also directed that Lawbaugh be quarantined during the incubation period of smallpox, and that on his release steps be taken to indict him for a deliberate attempt to cause the spread of disease. While admitting that there was no specific statute which would apply to the case at issue, Dr. Egan inclined to believe that a conviction could be secured under the governing principle "the health of the people is the Supreme Law" under which many steps are taken and measures adopted which under ordinary circumstances would be considered as infringements upon personal rights. The Secretary very aptly asked the local authorities what they would do if Mr. Lawbaugh were to go to a laboratory and collect a large number of diphtheria germs and afterwards stand at the gates of one of the public schools of Geneseo and scatter them in the air as the pupils passed. The cases would seem to be parallel.

Comments of Chicago Chronicle.

The anti-vaccinationists are entitled to their opinions, but they are not entitled, and they should not be permitted, to endanger public health as the result of those opinions. One man's rights end where other men's rights begin.

The individual who deliberately visited the pest house at Geneseo, Ill., presumably with the idea of demonstrating that he would not catch the disease though unvaccinated, is a type of the dangerous monomaniac who imagines himself a stickler for principle.

He not only imperiled his own life—which is no great matter—but he placed in jeopardy the health of the whole community by circulating around the village while fresh from the small-pox hospital. He was willing to bring others into danger in order to sustain his pet theory. Such recklessness of other people's rights neces-

sitates repressive measures, and the means are fortunately at hand.

The authorities of Geneseo can find no statute under which the offender can be punished, but they certainly have the power to isolate the man as a smallpox suspect—keeping him in security until all danger of infection shall be passed. And as he apparently has a fondness for the society of smallpox patients there is no reason why his preference should not be gratified.

Let him take up his quarters in the pest-house and stay there until the last patient has been discharged.

He will thus have proved that he, at least, is immune to the disease and, what is of more importance, he will no longer constitute a menace to his neighbors.

County and District Societies.

The next regular meeting of the Medical and Surgical Society of Western Illinois will be held in Jerseyville, August 3, 1900. The essayists for this meeting are E. S. Gooch, Carrollton; H. R. Gledhill, J. S. Williams and E. L. H. Barry, Jerseyville; W. L. Kincaid, Roodhouse.

H. A. Chapin, Reporter.

At the last meeting of the St. Clair County Medical Society the following officers were elected to serve during the ensuing year: President, W. H. McLean, East St. Louis; Vice President, Chas. Starkel, Belleville; Cor. Secretary, A. C. Housh, East St. Louis; Rec. Secretary, Jno. Stack, East St. Louis; Treasurer, B. H. Portuondo, Belleville.

No papers were read and no business of importance transacted.

Jno. Stack, Reporter.

The Chicago Academy of Medicine celebrated its Decennial Anniversary May 25, 1900. W. L. Baum, J. G. Kiernan, H. N. Moyer and E. S. Talbot were elected directors for the coming year. J. G. Kier-

nan was elected delegate from the academy to the 1900 International Medical Congress. W. A. Evans was elected chairman and announced the following toasts:

The Foundation of the Academy, Harold N. Moyer; The Motto of the Academy, W. L. Ballenger; The Board of Directors, W. Cuthbertson; The summer Meetings of the Academy, H. T. Byford; The Academy's Representative at the 1900 International Medical Congress, E. S. Talbot; The Social Features of the Academy, G. F. Lydston; Poem: The Secretary, W. H. Rumpf; The Academy in Science and Literature, W. L. Baum; The Humorous Aspect of the Academy, S. N. Hallberg; The Future of the Academy, J. G. Kiernan.
Jas. G. Kiernan, Reporter.

The Clay County Medical Society met in regular session at Louisville, June 12, with Dr. J. M. Bayles, of Flora, in the chair. After transacting such business as came before the Society, the reading of papers and discussion, the Society proceeded to elect officers for the ensuing year as follows:

President, J. M. Bayles, Flora.

Vice President, E. P. Gibson, Hoosier.

Secretary, W. E. Burgett, Louisville.

Asst. Secretary, C. V. Cruse, Oskaloosa.

Treasurer, W. F. Fairchild, Flora.

The next meeting will be held at Clay City on second Tuesday in September.

W. E. Burgett, Reporter.

The regular meeting of Peoria City Medical Society, June 5, 1900. Called to order by President O. J. Roskoten. Those present were Drs. Will, Kerr, Plummer, Hensley, Hanna, Marcy, Roskoten, Allison, Eckard, of Peoria; and Drs. Viola Shaw and Skelly of Pekin. Minutes of last meeting approved. Much satisfaction expressed with the success of committee in securing Peoria as next meeting place of State Society. A communication from a committee of the Morgan County Medical Society regarding the sense of a meeting recently held to discuss medical laws and organization, was read and upon motion Secre-

tary was requested to secure typewritten copies of the resolutions for distribution among members of the society. The communication was accepted and laid over for consideration at next regular meeting.

Dr. Marcy presented a paper on "The Complications and Sequelæ of Scarlet Fever." The discussion of the paper was entered into by Drs. Will, Skelly, Hanna, Kanne, Hensley and Roskoten.

Adjourned to meet last Tuesday in June.

E. M. Eckard, Reporter.

Members of the Winnebago County Medical Society to the number of two dozen and more and fourteen trained nurses took a day off, June 13, at Rockford, and went up river by steamer for a few hours of recreation.

With families and friends the gathering numbered near a hundred and the afternoon and evening were most delightfully passed. Stops were made at the Country Club grounds and at Brown's Creek. On the return trip the picnickers landed at the Sanitarium grounds where the contents of lunch baskets were investigated to the fullest extent.

During the afternoon Dr. Lichty gave a synopsis of the meeting of the American Medical Association at Atlantic City and Dr. Allaben gave a report of the meet of the State Society at Springfield.

The program for the July meet of the county society at the Nelson ordinary on the 10th was announced and it will include a symposium on appendicitis. Dr. Fringer is also expected to give a paper at this time on "Absorption Cure of Cataract."

J. H. Frost, Reporter.

A regular meeting of the Decatur Medical Society was held in the Elk's Club rooms on Thursday evening, May 24, President W. J. Chenoweth in the chair. The Board of Censors reported favorably on the names of Chas. Smith, of Boody, and C. E. Wilkinson of Monticello. On motion these gentlemen were received as members. A letter from the Morgan County Medical Society containing resolu-

tions adopted by that society and relating to medical legislation was read by the Secretary. On motion of H. C. Jones it was ordered that the Secretary reply to the letter and state this Society's approval of the resolutions.

The following officers were elected for the coming year: H. C. Jones, President; W. C. Wood Vice President; John T. Miller, Secretary and Treasurer.

The following program was discussed: Acute Nephritis, Will Chenoweth; Chronic Diffuse Nephritis, Chas. Bumstead; Chronic Interstitial Nephritis, W. H. Bell. All the papers were excellent and were heard with evident pleasure and profit by the society calling forth a great deal of discussion in which most of those present took part. John T. Miller, Reporter.

The McLean County Medical Society met at the city hall in Bloomington, at 8 P. M., Thursday, June 7, 1900. The meeting was well attended and the interest enthusiastic. President C. E. Chapin presiding. The committee having in charge the publication of the new constitution and by-laws, together with the history of the society and necrology reports, reported the material all ready for the printer. This book will be of twenty pages and will contain valuable information for the members. The removal from our city of Dr. A. M. Earl, one of the Board of Censors, made it necessary to elect some one in his place. Dr. J. Whitefield Smith, of Bloomington, was elected. Dr. A. W. Meyer, of this city, then read an interesting paper on the "Therapeutic Uses of Hot Air."

The doctor explained the action of hot air upon the circulation and absorption of the part and reported excellent results in cases of chronic rheumatism, edemas, phlebitis and gangrene. He explained the technique of the application and gave new ideas in this rather new field of therapeutics.

Dr. F. C. Vandervoort then read a paper on "Emergencies." He called attention to the usual distracting surroundings attendant upon emergency cases, and cautioned

coolness and level headedness on the part of the physician. He referred to the first treatment of cases of hemorrhage, shock, spasms, choking and especially to puerperal convulsions, placenta previa and strangulated hernia.

This paper brought out a spirited discussion which was of great benefit and fulfilled the object of the writer. Dr. Wm. Hill, the veteran, reviewed his treatment of strangulated hernia by rupturing the ring and stated he had never failed to reduce a hernia by manipulation.

Dr. John L. Fulton reported a violent case of puerperal convulsions resulting in death to mother and child. In this case the convulsions were kept in abeyance by chloroform and delivery effected as rapidly as possible. The woman never showed any signs of consciousness and died in coma within twelve hours from commencement of convulsions.

The society adjourned to meet the first Thursday in July at 8 P. M.

F. C. Vandervoort, Reporter.

The Champaign County Medical Society met at the Julia F. Burnham hospital at 2 P. M., May 10, 1900, at Champaign. Society called to order by Vice President John Laughlin. Minutes of previous meeting read and approved. Members present: J. C. Harmon, J. A. Hoffman, J. O. Pearman, C. M. Craig, A. S. Wall, W. K. Newcomb, H. E. Cushing, John Marten, S. S. Salisbury, J. C. Dodds.

Dr. Cushing presented a patient for diagnosis and treatment. Diagnosis, Linea trico-phytosis. Ichthiol reported as the best local treatment. S. S. Salisbury read a paper on "My Experience with Forceps in Obstetrics," eliciting general discussion.

John Laughlin read a paper on Anemia which was classified and, pernicious anemia, discussed at length by essayist and members present.

Board of censors reported favorably on applications of C. P. Hoffman, of Sadorus; Z. E. Matheny, Pesotum; S. J. Hicks, Ivesdale; J. A. Fullenwider, Champaign.

By motion, Secretary instructed to cast

the vote of the Society in favor of their election; ballot cast. Application for membership of L. W. Reid, of Deland, referred to the board of censors. Motion to adjourn carried.

J. C. Dodds, Reporter.

The Adams County Medical Society convened in regular session June 11, 1900. President Otis Johnston in the chair.

Minutes of previous meeting read and approved. Under the second order of business W. W. Williams submitted a receipt for twenty-two and 15-100 dollars paid over by him as outgoing Secretary to Treasurer Nickerson.

Application for membership in the Society was made by J. E. McKinney and the same was referred to censors.

Owing to the absence of two of the three censors, the application of Wm. G. Schmidt was laid over until the next meeting.

Under the head of new business, the Secretary called the attention of the Society to the fact that the Secretary's book which had been in constant service for fifty years contained space for not more than four additional reports. It was moved and seconded that the Secretary purchase for the Society a new book. The motion was carried and it was so ordered.

The Society was apprised that Dr. A. C. Cotton, of Chicago, had expressed a willingness to appear before the Society and read a paper. It was moved and seconded that a cordial invitation be extended to Dr. Cotton to do so at his convenience. Carried, and so ordered.

Dr. W. H. Baker read a paper, report of a case of Anthrax, and exhibited microscopic slide showing bacillus anthracis. The seat of the anthrax pustule was the left bronchus. The diagnosis was made when in searching the bloody sputum for the tubercle bacillus the bacillus of anthrax was found instead. The treatment consisted of guaiacol carbonate and cod liver oil. The patient made good recovery.

Reports from the delegates to the meeting of the Illinois State Medical Society

were then called for. In his remarks Dr. Nickerson highly commended the paper of Dr. H. G. Patrick on "Every Day Headaches." Dr. Christie, Jr., in his report expressed the interest he had felt in the paper by Dr. A. Church on "A New Treatment of the Opium Habit."

Before adjournment Dr. John Koch asked permission to bring before the Society the desirability of having, at this time, a physician appointed as city health officer. It was the consensus of opinion that this was very desirable, but it was also considered futile to take any action in the matter.

There being no further business to come before the Society, the chair entertained a motion to adjourn, which was carried.

The members present at this meeting were Drs. Johnson, Baker, Robbins, Nickerson, Koch, Sigsbee, Fletcher, Christie, Hart, W. W. Williams, Brenner, Germann, Justice, Center.

Chas. D. Center, Reporter.

The Tri-County Medical Society met Tuesday, June 5, in Watseka for their regular summer meeting.

Late trains necessitated some change of program and doubtless kept some of the members from coming at all. By one o'clock, the hour named by our host for the "spread," twenty or more doctors were present. After a few minutes of hand shaking shaking and inquiry as to who came and who didn't come, Vice President B. S. Euans, of Watseka, led the way to the dining room, where we were feasted to the complete satisfaction of every one. By 3 P. M. the doctors had assembled at the M. W. A. hall. Vice President Euans presided. After the opening preliminaries the following names were presented for membership and voted on favorably: Ethan Allen and Horace Gibson, of Sheldon; Ira Gillum, of Milford. Charles B. Johnson, of Champaign, was chosen honorary member. A very interesting address on "Sanitation in Town and Country" was delivered by Charles B. Johnson, of Champaign, a member of the State Board

of health. Pierce gave a most interesting address on "Cuba as a Health Resort." Several good papers were read. Among them was one on the "General Anæsthetic" by L. B. Russel. Another paper, "Smallpox," was read by Diller, of Roberts. Hall, of Milford, sent an excellent paper on "The Treatment of Consumption." Cochran, of Danville, sent a paper on "The Comparative Value of Anæsthetics." The election of officers resulted as follows: President, B. S. Evans; Vice President, E. E. Clark; Secretary, Leroy Jones; Board of Censors, W. P. Peirce, D. L. Jewett and Ira Gilum. It was voted to hold the winter meeting in Hoopeston December 4th, 1900. In many ways this was the best meeting the society has had. The Tri-County doctors are nothing if not progressive, and we hope this spirit will continue to characterize the society for many years to come.

Leroy Jones, Reporter.

BRAINERD DISTRICT MEDICAL SOCIETY.

The society met at the city hall in Springfield, April 26, 1900. Dr. Lowrie presided in the absence of the president. Those present during the day were Drs. Barger, Glenn, Hairgrove, H. C. Hill, Kreider, Lowrie, Miller, Munson, I. Newcomer, Shipp, Bowcock, Southwick, Kelly, Taylor, Dixon and others from the city. Minutes of previous meeting read and approved. Drs. H. W. Smith, of Roodhouse, C. M. Bowcock and J. W. Kelly, of Springfield, and Geo. E. Southwick, of Beamington, applied for membership and were duly elected.

The secretary's annual report was given showing that seven have joined during the year, thirteen are in danger of suspension for non-payment of dues and one, Dr. W. H. C. Smith, of Godfrey, had withdrawn from the society. The financial condition is excellent. The program committee have been exceptionally active and successful. The four regular meetings have been held and a good program given at each. Attendance is not what it should be.

The treasurer reported the year's ex-

penses, \$32.85, and balance in treasury, \$56.57. The reports were accepted as read.

On motion the secretary was ordered to furnish a report of the meetings to the Illinois Medical Journal.

G. N. Kreider gave an informal report of the work of the organization of new societies in the State, showing that the efforts of the State Society are bearing fruit.

The paper of Dr. Servoss, of Havana, on "When shall we use forceps?" was read by the secretary. He advocates the use of forceps in otherwise normal labors where the head is slow in passing the soft parts, contending that the passage of the head compressed by the instruments and with the whole region relaxed by an anesthetic is safer than to await the action of nature. It also secures the gratitude of the mother for suffering avoided and preserves her strength from the exhaustion incident to long-continued effort.

The frequency of delay at the pelvic floor is probably due to the almost universal wearing of abdominal splints (corsets) which cause the muscles to waste and leave a woman unfit for the efforts of delivery. Chloroform is often useful in labor, but should not be given until the head is well through the bony pelvis and not pushed to complete anesthesia unless it seems best to use forceps.

Discussion.—G. N. Kreider: I cannot think such frequent use of instruments is safe. In cases where it is merely a question of saving time for the mother and doctor, no risk being involved for either mother or child, we cannot be justified in using them.

J. N. Dixon: The position of the essayist is certainly extreme. It would not be safe in city practice. Where forceps must be used the axis-traction principle should be employed. The forceps of Tarnier are heavier than is needed for ordinary work. The most convenient method is to apply the principle to ordinary forceps. It is interesting to note how considerably the motion of the handles of the forceps applied with axis-traction will vary from the move-

ment of the same handles applied even by a skillful operator. This difference is the index to the advantage of the axis-traction principle.

Fannie Shipp: Women should not be encouraged to call for forceps so easily. Often they only need encouragement to use their natural powers more actively and a speedy delivery will result.

J. L. Lowrie: I think the recommendations of the essay are extravagant and could not be wisely carried into general obstetric practice.

Election of officers resulted as follows: President, J. L. Lowrie, of Lincoln; Vice President, S. T. Hurst, of Greenview; Secretary, Katharine Miller, of Lincoln; Treasurer, Chas. C. Reed, of Lincoln; Board of Censors, A. G. Servoss, of Havana; A. L. Brittin, of Athens, and Carl E. Black, of Jacksonville.

J. L. Lowrie read a paper on the "Treatment of Pulmonary Consumption in the Climate of Central Illinois."

A case reported illustrated the principles employed. A lady, single, aged 28, parents living and well. No history of tuberculosis in the family except that one brother died six years ago from consumption following grippe. During the later weeks of his illness this sister attended him constantly. She continued well till last fall when she suffered a slight attack of bronchitis. Apparently complete recovery followed, but a month later she returned with an area of consolidation in the left lung, considerable fever and rapid loss of flesh with cough. The treatment consisted of much fresh air several hours daily being spent in the open air even in bad weather; doses of creosote and cod liver oil given three times a day and liberal diet; salt baths and pulmonary exercises to develop the chest. She has gained nine pounds; has better appetite, less cough and expectoration; night sweats nearly gone and general appearance of health. A slight rise of temperature occurs occasionally.

Discussion.—Drs. Dixon, Kreider, Hairgrove, Newcomer, Barger, Kelly and Tay-

lor spoke commending the treatment and suggesting slight variations useful in adapting the treatment to varying cases.

S. E. Munson, of Springfield, reported on the "Microscopic Examination of the Blood in Cancer." The paper was illustrated by specimens showing the changes which appear to be somewhat pathognomonic and certainly worthy of further study.

J. N. Barger, of Hopedale, discussed the topic "Defecation, Natural and Artificial." After speaking of the methods of securing healthy functions of the rectum, he presented an instrument for the securing of artificial defecation without pain and inconvenience in those confined to bed for any cause or suffering from hemorrhoids or other rectal disease. The rest thus secured is a powerful factor in restoration of perfect function in those so afflicted.

Owing to the lateness of the hour these papers were passed without discussion.

After dinner the Society attended a very interesting and instructive clinic on tubercular diseases of the bones and conservative surgery for severe injuries of the limbs, given at St. John's Hospital by Dr. Kreider.

Katharine Miller, Reporter.

The Sangamon County Medical Society met in the county court room, June 11, 1900, with President Kreider in the chair. Members present: Babcock, Bartlett, Babb, Brayshaw, Crocker, Dixon, Fisher, Griffith, Hill, Kreider, Munson, I. H. Taylor, Kerr, Percy Taylor.

Minutes of last meeting read and approved. Margaret Taylor Shutt and Fred O'Hara were elected as members of the society. Bill of Journal Co. for \$2.50 and bill of Secretary for postage and stationery read and referred to Auditing Committee, who approved same and they were ordered paid.

J. N. Dixon read an advertisement of a prominent druggist of the city and called attention to the injustice of such advertisements, and after some discussion of the subject, O. B. Babcock moved that a committee be appointed to report and recom-

mend some action of the society to take in regard to such publications, same to report at next meeting. The President appointed as such committee Drs. Babcock, Griffith and Percy Taylor.

The literary exercises were then opened by Dr. Fisher with "Climatic Method of Treatment of Tuberculosis;" considered the word "method" peculiarly fitting, as he was convinced that to do the patients full justice, the question of climate requires method in its consideration, so that when a particular locality is recommended it is with a full understanding of the peculiarities of the climate, the individual and his disease. The influence of climate on disease, especially upon the one under consideration, has long been known, but proper attention is not always given to the selection, and for this reason the good result expected has not always been attained. The question is not merely one of where to send a tuberculous patient, but whom to send; primary object sought is the arrest of the tubercular process, and in so far, a cure, and the restoration to health of the patient.

Individuals have idiosyncrasies in regard to climate the same as in regard to drugs. Given a diagnosis of phthisis, the earlier climatic influence is sought the more hopeful is the result, provided the right choice is made. Some persons do better in moist warm climates, while others require a cool, dry air. Quoted from paper of Sir Herman Weber, read before the International Tuberculosis Congress, as to indications for use of different climates for different persons. Advantages to be gained by a change of climate are pure air, sunshine, more or less dryness of the atmosphere, greater altitude, more equability of temperature, rest, freedom from worry, regularity of living and comparative remoteness from centers of civilization. Purity of air is considered the most essential point, purity consisting in freedom from contamination with organic and inorganic matter, the former being more important. To mention climate in connection with treatment of pulmonary troubles conveys the idea of a more or less remote one. It

is, however, but a form of the now popular "open air" treatment; the principle being the same in both, and can be carried out in this climate as well as in other, although our climate is not an ideal one; but with proper care and regulations the results may be not far from satisfactory. Spoke of the different health resorts recommended by different writers, and said that in whatever climate the patient may be he should be under strict medical supervision, special care being given hygiene, diet, rest and exercise, and medicinal treatment. Touched upon the plan of having consumptives sleep out of doors as being a form of open air treatment productive of good results. In closing his paper he said that too much confidence should not be placed in the unaided influence of climate, but that all other means should be used in conjunction therewith.

The next paper was upon "Medication," by Percy Taylor. Asked the question, "Can pulmonary tuberculosis be prevented?" and said that to a very great extent it could, by attention to public hygiene, as the large proportion of cases were the result of ingestion of food containing the germ of contagion. The public should be instructed in regard to this, by the profession. Diet should be arranged according to appetite, and if it failed, such tonics as strychnia, nux vomica and gentian should be made use of. Guaiacol, iron, quinine and combinations of acid arseniate and digitalis were spoken of as remedies to tone and invigorate the system while ammonia carb, iodide, with chloroform water, alternating with liquor potassæ arsenitis, and carbonate of iron, suggested in the pneumonic form of the disease. The dyspeptic symptoms were met with acid hydrochloric and glycerine. Spoke of the benefit to be derived from the use of alcoholic stimulants, in such amounts as to increase the appetite and improve the digestion. For gastric symptoms prescribed bismuth, subnit and salol, or Fowlers solution, tinc. nux vomica, and chloroform water. Spoke of the difficulty to be found in reducing the temperature, and suggested

some remedies for that purpose; sponging, quinine, acetanilid, etc. For diarrhea, bismuth, sub nit, 20 to 30 every three hours. For night sweats atropia, grs. 1/60, camphoric acid, grs. 20, about two hours before the expected sweat. For hemorrhage no remedy comparable with atropia, grs. 1/100 to 1/60 hypodermically. Spoke of cases treated by Koch's Tuberculin, with negative results, and of cases treated with Kleb's Tuberculicidin, with favorable results.

B. B. Griffith in reporting upon the danger to the public from expectoration of tuberculous sputa, in public places read from the article of Dr. G. E. Tyler, published in the Journal of American Medical Association, June 2nd, 1900, as exhaustive and fully covering the ground, and in closing spoke of the difficulty in preventing expectoration in public, without there could be provided places, spittoons, spit cups, etc., for those compelled by their disease to expectorate. Said he had noticed signs forbidding spitting in public places and no provisions made for obviating same.

S. E. Munson, in reporting upon the danger of the dairy as a means of spreading tuberculosis, especially among children, said there was a difference of opinion as to the danger of infection from cow's milk, but that there was no doubt as to the prevalence of tuberculosis among cattle as well as among the human race. Read a letter from L. Emmett Holt, in which the writer says: "Personally I can say that I believe most strongly, that apparently, few cases of tuberculosis in children originate in milk or meat." From a letter from Geo. W. Webster he read as follows: "It has been demonstrated that tuberculosis may be and is transmitted to children, and young animals, by means of tuberculous milk. Also that it is not necessary that the tuberculous inflammation which causes death should be in the mesenteric glands. It may be a meningitis, or a pulmonary tuberculosis. Furthermore, an old encapsulated mesenteric gland may remain dormant for many years, to ultimately give rise to a tuberculous peritonitis, etc." A letter from

Dr. Ochsner, of June 4th, 1900, states, that from the prevalence of the tubercular bacilli in milk and butter it is but reasonable to suppose that the young child who utilizes these products for food is very able to contract the disease. Stated that while house physician at the Cook County Hospital, he had performed many autopsies on children, from among the poor classes who had died from infantile marasmus, and in nearly all these cases the mesenteric glands were very greatly enlarged, and although he had not made a microscopical examination, the macroscopic appearances led him to believe that these glandular enlargements were of tubercular origin, and it is but fair to suppose that the infection came through the intestine, presumably from the dairy product ingested." A letter from A. F. Moore, Dixon, June 4th, 1900, says that he has a boy under observation seven years of age, who is suffering from tuberculosis; good family history, reared on the farm, drinking milk freely, and has been failing in health for some time. The milk was suspected and found to come from a tuberculous herd of cattle. In six particular cases he had found the bacilli in milk from as many different cows supposed to be in good condition. Believed that all municipalities should demand from dairymen supplying milk to cities, a certificate from an authorized veterinarian, stating that each dairy cow has been properly tested with tuberculin and is free from infection. Is confident that children become tuberculous through prolonged feeding upon milk from tuberculous cows, same supposed and accepted as in a condition of health beyond question." In the discussion which followed, Dr. Brayshaw said that change of climate was of advantage, but spoke discouragingly of treatment as most of the pronounced tuberculous cases died.

Dr. Kerr said he had seen but one case of genuine tuberculosis get well, and he attributed this cure to whiskey and cod liver oil, which the patient had taken in large doses. Said he had seen hundred of cases of the disease but all had died but this one. Dr. Babcock advocated the open air method

as of more importance than a change of climate, as numbers of cases would be improved if they could be gotten out of doors, and thought a large number of cases of genuine tuberculosis had recovered by this method. Dr. Dixon complimented the reader of the paper on his consideration of the climatic method, and said he thought the method the only satisfactory way to treat tubercular affections. Thought patients were too slow in taking advantage of the method, and that out of doors exercise, at home as well as abroad, was of the greatest importance. Cited a case where it had proved a cure, patient being today well, fifteen years having elapsed since recovery.

S. E. Munson: Much depends upon the diagnosis being made early. Under certain conditions a change of climate not advisable; the out door method at home being preferable.

G. N. Kreider stated that he had seen cases of healed tubercle on post mortem examination, one case where a trip overland across the plains had resulted in a cure of the disease. He called attention to the fact that the committees appointed to report upon the danger to the public from expectoration of sputa in public places, and on the danger of the dairy as a means of spreading tuberculosis, especially among children, had not recommended any measures whereby the dangers might be prevented, and upon motion of the Secretary the committees were continued that they might make some recommendations along this line.

G. N. Kreider having obtained a slide containing the bubonic plague germ, from Messrs. Park, Davis & Co., the members of the society were invited to inspect same under the microscope.

Lunch having been announced, the society adjourned to the table where a general discussion of the papers was had and the society adjourned, upon motion, to the second Monday in September.

Edw. P. Bartlett, Reporter.

STATE ITEMS.

St. Clara's Hospital, at Lincoln, is to have a new building that will cost \$2,000.

A new pension examining board has been established at Geneseo. L. A. Ferry, Geneseo; W. A. Grove, Galva, and W. H. Cole, Kewanee, have been appointed members.

Dr. Edwin Klebs has removed from Chicago, retiring from the teaching positions held for the last few years. Dr. Klebs will spend a few months in Switzerland and then go to Germany for his future permanent residence.

Marriages, Deaths, Change of Address

MARRIAGES.

- Dr. L. H. Mettler, of Chicago and Miss Minnie Warner of Clinton, June 12, 1900.
 Dr. Wm. L. Cullaway, of Chicago and Miss Martha Ann Terry in Fulton, Missouri, June 12, 1900.
 Dr. Carr Burr Case and Miss Grace W. Vivian, of Chicago, June 13.
 Dr. S. Marcus Moore, of Evanston and Miss Paulina Fuller at Sorento, Maine, June 27.
 Dr. Wm. H. G. Logan and Miss Florence A. Brophy, at Chicago, June 14.
 Dr. C. V. Cruse, of Oskaloosa and Miss Viola Smith, of Iola, June 17.
 Dr. J. R. Walker, of Bluffs, Illinois, and Miss Flora Nye, at Greenfield, Illinois, May 9, 1900.
 Dr. Louis J. Oatman, of St. Louis and Miss Anna J. Martin at Jacksonville, Illinois, June 5, 1900.

DEATHS.

(Furnished by State Board of Health.)

- Brown, L. E., at Chicago, June 25.
 Chaffee, Herman, at Tolono
 Crawford, Henry F., at St. Charles, June 25.
 Frazer, Wm. G., at San Antonio, Texas.
 Horner, W. F., at Clinton.
 Locke, Robt. D., at Chicago.
 Miller, Truman W., at Chicago.
 Schuessel, Jos., at Belleville.

CHANGES IN ADDRESS.

(Furnished by State Board of Health.)

CHANGES IN CHICAGO.

- Allen, Thos. G., 3761 Washington Ave. to cor. Madison and 57th st.
 Baker, Henry L., 4 S. Kedzie ave. to 655 W. 12th st.
 Barker, Ernest S., 245 to 238 LaSalle ave.
 Bailey, E. Stillman, 711 Marshfield Bldg. to 31 Washington st.
 Burgess, S. F. K., 9 S. Ada st. to 165 S. Wood st.

Castor, H. C., 340 to 184 N. State st.
 Cooper, Anna R., 2956 Dearborn st. to 2970 State street.
 Dowdall, Wm. T., 3816 Rhodes ave. to Rand & McNally Bldg.
 Ellis, John B., Illinois Charitable Eye and Ear Infirmary to 433 S. Paulina st.
 Fisher, Geo. C., 3000 to 2136 Indiana ave.
 Fruit, Walter E. 823 W. 47th st to 92 S. State st.
 Fraser, Allan D. 6860 to 6901 S. Halsted st.
 Friedel, Max J., 1228 Milwaukee ave. to 566 N. Ashland ave.
 Goodwin, H. F., 531 W. Adams to 511 Ashland Boul.
 Geiger, A. H., 18 Lincoln ave. to German Hospital.
 Golden, I. J. K., 1045 to 1134 Milwaukee ave.
 Gleitsmann, Emil, 654 N. Hoyne ave. to 710 Fullerton ave.
 Hillman, Amanda F., 171 LaSalle ave. to 328 LaSalle st.
 Hendricks, Wm., cor. 59th and Center st. to 936 West 63rd st.
 Heckard, M. O., 1251 to 1276 W. Madison st.
 Hunt, Marie L., 462 Bowen ave. to 4007 Grand Boul.
 Jaquith, Wm. A., 3841 Rhodes ave. to 5713 Drexel ave.
 Lawbaugh, Elmer A., 31 Washington st. to 237 LaSalle ave.
 Morse, Eliza R., 4337 to 4311 Berkley ave.
 Parker, Chas. A., 894 to 776 W. Lake st.
 Rowan, Chas. J., Cook County Hospital to 372 Adams st.
 Sawyer, J. E., 4647 Evans ave. to 472 E. 47th st.
 Sloan, John F., 530 W. Adams st. to 296 Marshfield ave.
 Schmidt, Maria S., 892 Kedzie ave. to 1596 W. 22nd st.
 Stewart, Robt., 3500 to 3459 State st.
 Sullivan, P. A., 281 Jackson Boul. to 293 Monroe st.
 Swartz, T. B., 2900 Cottage Grove ave. to 103 State st.
 Stevenson, A. F. Jr., Presbyterian Hospital to 378 LaSalle ave.
 Spring, Carrie K., 45 Fowler st. to 1451 Clark st.
 Sippey, Bertram W., 143 Oakwood Boul. to the Winamac.
 White, Wm. S., 70 State st. to 900 Marshall Field Bldg.
 Williams, D. H., 3301 to 3149 Forest ave.
 Wisteln, Jos. L., 612 Throop st. to 989 W. 19th street.

CHANGES FROM CHICAGO.

Carson, C. J., to Marshall, Mich.
 Clark, J. Wendell, to Kenilworth.
 Fifield, Burt B., to Grandville.
 Foringer, H. S., to Kaylor, Penn.
 Hall, Fred G., to Galesburg.
 Hover, Hugh, to Stanford.
 Irwin, E. A., to Boulder, Mont.
 Long, Ross D., to Pretoria, South Africa.
 Richter, A. J., to Pine Bluff, Ark.
 Rud, Anthony, to Austin.
 Tabor, Frederick S., to Hinckley.
 Walter, Lyman P., to Morrison.

CHANGES TO ILLINOIS.

Blair, Chas. H., to Rockford.
 Brown, W. E., Coolville, Ohio to Taylorville.
 Cook, Earl H., Benton, Wis., to Winslow.
 Dunlevy, C. G., Evansville, Ind., to Oak Park.
 Evernden, Thos. J., Winter Park, Fla., to Beardstown.
 Hall, Walter S., to Berwyn.
 Miller, J. H., Baltimore, Md., to Pana.
 Scott, Warren D., to Moline.
 Thompson, Littleton, to Utica.
 White, S. M., Minneapolis, Minn., to Somonauk.
 Worrell, Wm. D., to Galva.

CHANGES IN ILLINOIS.

Ash, John C., Goodhope to LaHarpe.
 Allard, G. W., Eldorado to Carmi.
 Black, Samuel M., Westville to Georgetown.
 Brannon, Geo. H., Manhattan to Joliet.
 Barnett, John R., Hartsburg to Lincoln.
 Black, Sam'l. M., Westville to East Lynn.
 Boswell, W. H., Lake Creek to Sheller.
 Coleman, J. W., Morton to Pekin.
 Colyer, J. R., Arthur to Tuscola.
 Gailey, Darwin S., Ashland to Jacksonville.
 Hill, Green E., Modesto to Girard.
 Ellis, J. G., Decatur to Cerro Gordo.
 Fitzgibbons, Wm. E., Green Valley to Minonk.
 Jenkins, Ben. D., Bushnell to Macomb.
 Moffitt, Wm. T., Williamsville to Jacksonville.
 Moore, Samuel, Canton to Grape Creek.
 McCance, J. B., Mahomet to Thomasboro.
 Otis, L. J., Seaton to Aledo.
 Pyle, Henry G., Pontiac to Chenoa.
 Skinner, F. C., Port Byron to LeClaire.
 Shank, W. L., Mattoon to Effingham.
 Smith, Gould, Homer to Pierson Station.
 Spalding, J. B., Clinton to Decatur.
 Sly, Chas. W., Wing to Bradley.
 Scott, John F., Oak Park to Sterling.
 Telford, Alexis T., Breese to Menard.
 Thompson, O. L., Astoria to Russell.
 Trueblood, R. R., Pinkstaff to Monroe City.
 VanDoren, F. E., Saunemin to Herscher.
 Westerlund, J. E., Orion to Cambridge.

CHANGES TO CHICAGO.

Donaldson, W. J., Commerce, Mich., to 484 Madison st.
 Dunlap, John, New York, N. Y., to Masonic Temple.
 Getzlaff, Bruno J. F., St. Peter to 368 Larrabee street.
 Jacobs, Chas. W., to 625 Washington Boul.
 Payne, D. A., Gainesville, Texas to 866 Monroe street.
 Willcox, Helen B., Hammond, Ind., to 6715 St. Lawrence ave.

CHANGES FROM ILLINOIS.

Bailey, M. R., Elliott to Philadelphia, Pa.
 Cunningham, P. L., Lincoln to ———
 Fernald, Wm. J., Rantoul to Frankfort, Ind.
 Martinie, Chas. W., Lincoln to ———
 Pollock, R. M., Princeton to Rocky Ford, Col.
 Rigg, Virginia C., Springfield to New York, N. Y.
 Robinson, W. W., Anna to ———

CALENDAR OF MEDICAL SOCIETIES.

City.	President.	Secretary.	Time and Place of Meeting.
Alton Medical Society.....	W. A. Haskell, Alton.....	P. W. Beckman, Alton.....	1st Thursday of each month
Chicago Pediatric Society.....	A. C. Corton, Chicago.....	F. S. Churchill, Chicago.....	Monthly
Chicago Society of Internal Medicine.....	John A. Robison, Chicago.....	Ed. F. Wells, Chicago.....	1st Friday of every month Oct. to June
Chicago Surgical Society.....	John E. Owens, Chicago.....	A. W. Elsendrath, Chicago.....	Quarterly in connection with Chi. Med. Soc.
Chicago Laryngological Society.....	F. Fletcher Ingals, Chicago.....	T. Melville Hardie, Chicago.....	Monthly, except July and August
Chicago Orthopedic Society.....	Frederic S. Coolidge, Chicago.....	John L. Porter, Chicago.....	1st Friday of each month
Chicago Academy of Medicine.....	W. L. Baum, Chicago.....	J. G. Kieran, Chicago.....	2d Friday of each month
Chicago Bohemian Medical Society.....	Chas. Stulik, Chicago.....	W. J. Dvorak, Chicago.....	Every Wednesday evening
Chicago Medical Society.....	J. H. Stowell, Chicago.....	S. C. Plummer, 4365 Lake St., Chicago.....	1st Monday of each month
Chicago Pathological Society.....	Ludwig Hekroon, Chicago.....	George H. Weaver, Chicago.....	2d Monday of each month
Chicago Gynecological Society.....	Thomas J. Watkins, Chicago.....	Wm. H. Rumpf, Chicago.....	3rd Friday of each month
Chicago Ophthalmological & Otolgic Soc.....	Lyman Ware, Chicago.....	C. P. Pinekard, Chicago.....	2d Tuesday of each month
Chicago Neurological Society.....	Richard Dewey, Chicago.....	Sydney Kib, Chicago.....	Quarterly
Chicago Medical Examiners.....	H. A. Hadley, Chicago.....	Wm. L. Baum, Chicago.....	No regular meeting
Demonstrator's Association of Chicago.....	Wm. J. Chenoweth, Decatur.....	M. L. Harris, Chicago.....	2d Monday of each month
Decatur Medical Society.....	M. Herzog, Chicago.....	W. C. Wood, Decatur.....	Monthly
German Medical Society of Chicago.....	C. P. Thompson, Jacksonville.....	Adolf Decker, Chicago.....	Every two weeks
Jacksonville Medical Club.....	Jos. Matteson, Chicago.....	H. C. Campbell, Jacksonville.....	1st Saturday September, March and June
Medical Legal Society of Chicago.....	Carl Wagner, Chicago.....	Wm. S. Baum, Chicago.....	Monthly
North Chicago Medical Society.....	J. C. Hatheway, Ottawa.....	J. N. Washington, Chicago.....	Monthly
Ottawa City Medical Society.....	O. J. Rostkott, Peoria.....	Wm. A. Pike, Ottawa.....	Monthly
Peoria City Medical Society.....	W. H. Wilder, Chicago.....	N. M. Sedgwick, Peoria.....	Monthly
Physician's Club of Chicago.....	W. H. Cole, Kewanee.....	L. H. Mettler, Chicago.....	Monthly
Physician's Club of Kewanee.....	Geo. A. Torrisson, Chicago.....	W. D. Kohlmann, Kewanee.....	3d Thursday of each month
Scandinavian Medical Society of Chicago.....	Geo. F. Swan, Chicago.....	Thos. Warloe, Chicago.....	1st and 3d Tuesday of each month
South Chicago Medical Society.....	Gertrude G. Wellington, Chicago.....	John S. Davis, Chicago.....	1st Tuesday in each month
The Medical Women's Club of Chicago.....	H. C. Howard, Champaign.....	Jas. H. Finch, Champaign.....	2d and 4th Wednesdays of each month
Twin City (Champaign and Urbana) Clinical Association.....	Chas. A. Nichols, Urbana.....	E. S. Smith, Urbana.....	1st Monday of each month
Urbana Society of Physicians and Surgeons.....			
County.	President.	Secretary.	Time and Place of Meeting.
Adams County Medical Society.....	Otis Johnson, Quincy.....	C. D. Center, Quincy.....	Monthly, on 2nd Monday at Quincy
Bureau County Medical Society.....	S. W. Hopkins, Walnut.....	A. E. Owens, Princeton.....	2nd Thursday of Nov. and May
Bond County Medical Society.....	B. F. Coop, Greenville.....	C. C. Gordon, Greenville.....	Meets in September and April
Clay County Medical Society.....	J. M. Barles, Flora.....	W. E. Burgett, Louisville.....	Quarterly at Louisville
Clinton County Medical Society.....	W. T. Gordon, Carlyle.....	M. Broening, Tolono.....	May, Aug., Nov., and Feb., at Carlyle
Champaign County Medical Society.....	T. J. McKinney, Gifford.....	J. C. Dadds, Tolono.....	Monthly at Champaign
Crawford County Medical Society.....	W. H. Hoskinson, Trimble.....	John Weir, West Union.....	2d Thurs. in July, Sept., Nov., Jan. & May
DeWitt County Medical Society.....	D. W. Edmiston, Clinton.....	John A. Tyler, Clinton.....	2d Tuesday in Jan., April, July and Oct.
Douglas County Medical Society.....	Maud E. Nichols, Tuscola.....	W. E. Rice, Tuscola.....	1st Thursday in Feb., May, Aug. and Nov.
Fulton County Medical Society.....	E. W. Regan, Canton.....	D. S. Ray, Cuba.....	
Hancock County Medical Society.....	Alex. H. Colvard, Shawneetown.....	Geo. P. Cassidy, Shawneetown.....	1st Monday in May at Carthage
Gallatin County Medical Society.....	Wm. Roaz, Carthage.....	R. L. Casburn, Carthage.....	
Jefferson County Medical Society.....	J. H. Mitchell, Mt. Vernon.....	A. A. Dearnduff, Mt. Vernon.....	1st Thursday of each month
Kankakee County Medical Society.....	Geo. H. Lee, Kankakee.....	J. H. Roy, Kankakee.....	Annually, 3rd Tuesday in April
Lake County Medical Society.....	L. M. Bergen, Waukegan.....	A. C. Haven, Lake Forest.....	3d Tues. in April and Oct. at Carlinville
LaSalle County Medical Society.....	R. W. Power, Sheridan.....	E. H. Butterfield, Ottawa.....	1st Tuesday Jan., April, July and Oct.
MacDonough County Medical Society.....	J. S. Collins, Carlinville.....	J. P. Matthews, Carlinville.....	1st Thursday of each month at Bloomington
McLean County Medical Society.....	D. A. Blair.....	S. C. Siremmel.....	In March and September at Waterloo
Monroe County Medical Society.....	Chas. E. Chapin, Bloomington.....	F. C. Vandervort, Bloomington.....	2d Thursday, Metropolis
Massac County Medical Society.....	H. Ganter, Floraville.....	L. Adelsager, Waterloo.....	
	S. J. Rhodes, Metropolis.....	C. E. Trevillion, Metropolis.....	

CALENDAR OF MEDICAL SOCIETIES—Continued.

County.	President.	Secretary.	Time and Place of Meeting.
Morgan County Medical Society.....	W. C. Cole, Jacksonville.....	Edw. Bowe, Jacksonville.....	2d Tuesday of each month at Jacksonville
Pike County Medical Society.....	L. J. Harvey, Grigsbyville.....	R. H. Main, Barry.....	Monthly
Ogle County Medical Society.....	G. M. McKenney, Oregon.....	H. A. Mix, Oregon.....	1st Wednesday in January and July
Physicians' Protective Assn. of Jackson Co.	W. W. Essick, Murphysboro.....	O. E. Ormsby, Murphysboro.....	2d and 4th Saturday of each month
Rock River Valley Medical Association.....	A. G. McBride, Sterling.....	A. L. Miller, Dixon.....	2d week in June and December
St. Clair County Medical Society.....	W. H. McLean, E. St. Louis.....	J. F. Stack, E. St. Louis.....	Monthly
Schuyler County Medical Society.....	J. A. Harvey, Rushville.....	C. W. Ball, Rushville.....	1st Monday in each month.....
Saline County Medical Society.....	J. W. Tallman, Harrisburg.....	J. R. Baker, Harrisburg.....	Monthly, on 2d Monday at Springfield
Sangamon County Medical Society.....	Geo. N. Kreider, Springfield.....	E. P. Bartlett, Springfield.....	.....
Stephenson County Medical Society.....	J. B. Letzeli, Orangeville.....	J. F. Fair, Freeport.....	Annually
Shelby County Medical Society.....	Wm. J. Eddy, Shelbyville.....	A. G. Mizell, Shelbyville.....	1st Tuesday in June and December
Trit County Medical Society.....	B. S. Evans, Watseka.....	Leroy Jones, Hoopston.....	2nd Friday evening at Danville
Vermillion County Medical Society.....	W. A. Cochran, Danville.....	E. E. Clark, Danville.....	2nd Tuesday of each month
Will County Medical Society.....	G. M. Pears, Joliet.....	Thos. J. Wagner, Joliet.....	Quarterly
Wabash County Medical Society.....	J. Schneck, Mt. Carmel.....	G. C. Kingsbury, Mt. Carmel.....	Annually
Winnebago County Medical Society.....	T. N. Miller, Rockford.....	J. H. Frost, Rockford.....	Semi-Annually
White County Medical Society.....	E. J. Blair, Monmouth.....	A. G. Patton, Monmouth.....	2d Thursday in Jan., April, July and Oct.
Williamson County Medical Society.....	W. W. Apple, Carmi.....	W. A. Steele, Carmi.....	1st Monday of Jan., April, July and Oct.
Woodford County Medical Association.....	W. H. Bentley, Marion.....	G. W. Evans, Marion.....	1st Tuesday in May
.....	C. E. Davis, Peoria.....	Frank Stubblefield, El Paso.....	.....
District.	President.	Secretary.	Time and Place of Meeting.
Aesculapian Society of the Wabash Valley.	Z. T. Baum, Paris.....	H. McKennan, Paris.....	Terre Haute, Ind., in May
Association Military Surgeons of Illinois.....	Col. Nicholas Senn, Chicago.....	Lt. Col. Chas. Adams, Chicago.....	Annually, Chicago or Springfield
Brainard District Medical Society.....	J. L. Lowrie, Lincoln.....	Katherine Millet, Lincoln.....	4th Thursday of Jan., April, July and Oct.
District Medical Society of Central Illinois.	J. N. Nelms, Taylorville.....	C. R. Spicer, Taylorville.....	Last Tuesday in April and October
Fox River Valley Medical Association.....	C. L. Smith, Aurora.....	M. M. Robbins, Aurora.....	At Elgin in May and at Aurora in Nov.
Galva District Medical Society.....	W. A. Grove, Galva.....	C. W. Hall, Kewanee.....	Annually, 1st Tuesday in May at Galva
Iowa & Illinois Cent. District Medical Assn.	C. C. Carter, Rock Island.....	G. E. Decker, Davenport, Ia.....	Quarterly
Medical & Surgical Society of Western Ill.	H. W. Smith, Roodhouse.....	H. A. Chaplin, Whitehall.....	May 4th at Carrollton
Military Tract Medical Association.....	E. J. Sutton, Canton.....	C. B. Horrell, Galesburg.....	At Kewanee
North Central Illinois Medical Association.	P. M. Burke, LaSalle.....	Geo. A. Cicus, Streator.....	Annually, 1st Tuesday in December
Southern Illinois Medical Association.....	W. F. Grinstead, Cairo.....	W. H. Keesee, Carbondale.....	Semi-annually

ILLINOIS Medical Journal

The Official Organ
of the
State Medical Society



A Monthly Bulletin
Edited by the
Publication Committee

Printed by
THE ILLINOIS STATE JOURNAL COMPANY.

Entered in the Springfield Postoffice as Second-Class Matter.

Volume L.
New Series, Vol. II. }
Number 3. }

Springfield, Ill., August, 1900.

{ Subscription, \$3 a Year.
Single Copies, 25 Cents. }

TABLE OF CONTENTS.

ORIGINAL ARTICLES.

Ankle Sprains—Edward H. Ochsner, B. S., M. D., Chicago.....	99
Two Cases of Intestinal Obstruction fol- lowing Vaginal Hysterectomy and one after Pelvic Abscess, with a Secondary Operation in Each Case—A. Goldspohn, M. D., Chicago.....	103
Is Pneumonia Contagious?—J. T. McNally, M. D., Carbondale.....	108
Have We Small Pox?—H. C. Mitchell, M. D., Carbondale.....	112
Appendicitis—Perineal Operation in the Male and Vaginal Incision in the Female —E. M. Sutton, M. D., Peoria.....	114
California as a Health Resort—John H. Hollister, M. D., Chicago.....	116
Diagnosis of Tumors of the Spinal Cord and Its Membranes—Frank P. Norbury, M. D., Jacksonville.....	120

EDITORIALS.

Osteopathy in Kentucky.....	134
Foxes Turn on the Hounds.....	134
Vivisection.....	135
Rudolphus Rouse.....	135

TRANSACTIONS.

Transactions of 50th Annual Meeting.....	124
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Correspondence.....	136-137
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COUNTY AND DISTRICT SOCIETIES.

Vermilion County Medical Society.....	137
St. Clair County Medical Society.....	137
Hancock County Medical Society.....	137
Crawford County Medical Society.....	137
Decatur Medical Society.....	137
Chicago Orthopedic.....	138
Aesculapian Society of the Wabash Valley.....	138
Adams County Medical Association.....	138
Moultry County Medical Society.....	141
Pike County Medical Society.....	139

Obituary—Edgar Bolles, M. D.....	140
Dinner to Professor Fenger.....	141
Marriages, Deaths, Changes of Address.....	141-142
Calendar of Medical Societies.....	143-144



DR. RUDOLPHUS ROUSE.

The Illinois Medical Journal.

The Official Organ of The Illinois State Medical Society.

VOL. I,
New Series, Vol. II. }
No. 3.

Springfield, Ill., August, 1900.

{ SUBSCRIPTION
\$3.00 A YEAR.

ANKLE SPRAINS.*

BY EDW. H. OCHSNER, B. S., M. D., CHICAGO.

Sprains are by far the most common joint injuries and of all the points of the body the ankle is the one most frequently involved, in fact, ankle sprains are probably as numerous as all other sprains combined.

A sprain may be defined as the result of a sudden wrench or twist of a joint in which the usual range of motion has been exceeded. It may vary in degree from the slightest twist, the effects of which may subside in a few moments, to a severe injury the result of which may be troublesome and annoying for months and even years. What we may be compelled to diagnose as a severe sprain when the patient comes to consult us, may have been a momentary dislocation at the time of injury.

Sprains may be complicated by, or themselves complicate dislocations and fractures. A simple, uncomplicated ankle sprain may be caused by a misstep or a fall, but in the majority of cases it is the combination of these two factors that produces the result. The patient falls or jumps down a few feet, and because of some unevenness of the ground, or because of improper innervation of the muscles of the leg, the foot is forcibly inverted and the ankle is sprained. This accident is most apt to occur in two classes of patient: First, persons who have very hazardous occupations, who are compelled to jump and leap a great deal not always being able to note carefully where they are going to land, such as circus riders, acrobats, trapeze performers, pugilists, base ball and foot ball players, structural iron workers, carpenters, painters, bricklayers, and probably commonest of all the

maid who has to wash windows and hang curtains, using unsteady and broken tables and rickety step-ladders. Second, young and middle aged women of the well-to-do and wealthy classes whose ankles are naturally weak, or weak, at least, in proportion to their body weight. Here we have a mode of life producing in two ways conditions especially favorable to this accident. Because of good living and insufficient exercise a disproportionate amount of adipose tissue is deposited, increasing unduly the body weight, the muscles become flabby and do not respond rapidly and precisely to the will, leaving the ligaments improperly supported by the tendons at the critical moment.

Finally, we must not forget to mention those patients who, because of repeated sprains, are liable to have a recurrence with the slightest twist or misstep.

When a sprain takes place the synovial membrane is bruised and crushed; the ligaments, tendons, blood vessels, and lymphatics may be torn. If the vessels are lacerated effusion of blood will take place into the joint or into the surrounding connective tissue. The injury to the blood vessels or lymphatics also interferes with the return circulation, and more or less swelling is sure to occur. The sprain being due to a sudden injury the onset of pain is instantaneous and usually very severe, sometimes so excruciating that even a strong person may faint. Then, as the synovial fluid is secreted to bathe and separate the injured portions of the joint surfaces, the pain subsides and if the injury has been slight it does not return. If, however, the blood vessels and lymphatics have been severely lacerated their contents will be poured into the joint, distending the capsule to such a degree as to produce a much more annoying pain because of its boring, burning, persistent character. The pain

*Read at the Fiftieth Annual Meeting of the Illinois State Medical Society, Springfield, May 16, 1900.

is much more severe when passive motion is attempted and active motion is often quite impossible. Often there is general, more rarely, localized tenderness. Because of the increased blood supply to the part the local temperature is usually somewhat elevated.

If one will but remember the above enumerated symptoms, recalling especially the fact that there is practically always the history of a misstep or fall, or both, and generally an interval of a few hours between the first sharp, excruciating pain and the later burning, throbbing pain, it is usually quite easy to differentiate an ankle sprain from a dislocation, a fracture, or a tubercular process, the only other pathological conditions with which it is at all likely to be confounded. If, however, the injured member is not seen until severe swelling has taken place it may sometimes be quite difficult, and almost impossible, to differentiate between a sprain and a possible dislocation or fracture. In the latter cases, when the ordinary differential signs cannot be positively elicited, a skiograph is of the greatest help in determining whether or not the different bones entering into the formation of the ankle joint bear the proper relation to each other, or whether or not there is a line of fracture through one or more of these bones.

To make a diagnosis between a recent ankle sprain and well developed tuberculosis is very easy. To make a diagnosis between an old ankle sprain and beginning tuberculosis of the ankle is often quite difficult, and sometimes impossible. Especially is this true when the patient gives a very positive history of having sprained the ankle some months previously. In this connection it must not be forgotten that a severe sprain may often be one of the chief factors in determining the location of a tubercular process.

The following differential points may be

of assistance in making a diagnosis between the two conditions:

CHRONIC ANKLE SPRAIN.

1. No marked influence on general health.
2. No pyrexia.
3. Often hyper-mobility due to lengthening of ligaments, the result of frequent spraining.
4. No noticeable atrophy of leg muscles.
5. Quite severe pain on beginning to use foot, in morning or after a rest; then less pain as ankle becomes pliable.
6. Little or no pain when at rest.
7. Rarely tenderness.
8. No characteristic deformity.

BEGINNING TUBERCULOSIS OF ANKLE.

1. Often marked anaemia and malnutrition, even at an early date.
2. Usually a little evening temperature.
3. Joint held more or less fixed and rigid, usually in slight extension.
4. Usually marked atrophy of leg muscles. This is the characteristic sign of joint tuberculosis—a disproportionately large, fusiform ankle.
5. Little or no pain on first using foot, but ankle becomes easily fatigued and as it gets tired may become painful.
6. Though there is not apt to be much pain when at rest, it is more common to find pain in a tubercular ankle than in a sprained ankle.
7. Often tenderness at a definite point early in the disease. This is especially true if the involvement of the joint proper is due to the breaking through of an osseous focus.
8. Even before the relative enlargement of the ankle develops there is often a slight fullness on the outer surface of the flexor tendons and on the inner surface of the tendo-Achilles.

To this may be added that a good skiograph will sometimes discover a tubercular focus in a case too early for the other symptoms to have developed.

If one looks through the literature on this subject one cannot help but be impressed with the chaos that exists on so simple a subject as the treatment of ankle sprains. A considerable number of the text books, and teachers, state in unmistakable terms that the only proper treatment for ankle sprains is a plaster of Paris cast, applied directly after the injury and worn some weeks. Another almost equally large and authoritative number state with equal

emphasis that the only satisfactory treatment consists in subjecting the sprained ankle to active and passive motion, and massage, directly after the injury. A minority recommend cold or hot applications, with elevation of the limb and firm bandages, later plaster of Paris cast, and finally massage and active and passive motion.

After thinking the matter over, it seemed strange to me that anyone would care to confine himself so rigidly to either of the first two methods, as some of the authors would have one believe that they do. Of the three general methods outlined the third certainly commends itself most highly to one's common sense, and it is the one that I would adopt were it not for the fact, as stated before, that I have seen a method demonstrated which is far superior to it in its results.

The method which I wish to describe and demonstrate comprises practically all of the good features of the three, without any of the objectionable ones. It consists in careful and systematic strapping with rubber adhesive straps. The straps are cut from half to three quarters of an inch in width, and the proper length. The width depends upon the size of the limb. If a small ankle the straps should be half an inch wide; if a large ankle they may be three quarters of an inch but no wider. Upon this, and upon the accuracy with which they are applied depends the success of the method. If the straps are too wide, or if they are applied in a haphazard manner, failure is sure to be the result.

The foot is held at slightly less than a right angle and a trifle everted. The former element in the position is observed because it is easier to walk on a painful ankle if it is held slightly in the calcaneum position, than if held in the equinus position. The latter element is observed because, as you well know, ankle sprains are usually caused by a sudden inversion of the foot, thus injuring the external ligaments; hence, slightly everting the foot relieves the tension of these ligaments and places them at rest.

With the foot in this position, one end of

a long strap is applied to the inner surface of the foot near its posterior end, brought under the heel and up on the outer posterior surface of the leg to within a few inches of the knee. At the lower end this falls into the depression just posterior to the external malleolus. A shorter strap is now applied by placing one end to the inner surface of the heel near the sole of the foot, then bringing it around over the tendo-Achilles to the outer surface of the foot, making it cover the first strap at a right angle and passing along parallel to the under border of the sole of the foot, then over the dorsum of the little toe. Another long one is now applied, anterior to the first, overlapping it about one-third of its width; then a short one and so on alternately until the outer anterior aspect of the ankle is reached.

Over all this a hard rolled bandage is now carefully and snugly applied. The patient is directed to lie still with the foot elevated until the warmth of the body has caused the plaster to adhere firmly. In a great majority of instances the patient can walk, with reasonable comfort, after a few hours.

The four cases that I wish to report are selected from among the number I have treated, because they illustrate four very different classes of cases:

Case I. A wealthy young lady, 18 years of age, weighing about 150 pounds, jumped from a moving street car on to an uneven pavement, half a block from the hospital, about 10 o'clock a. m. She forcibly inverted her right foot, immediately suffering excruciating pain. After a few moments she hobbled to the hospital. The patient could not bear her weight on the injured member except with great pain. Active and passive motion were extremely painful, and there was some tenderness just below the external malleolus. There was practically no swelling.

I applied the bandage as above described, and illustrated on the model which I pass around, and the patient walked home, four blocks, without assistance and with only a slight limp and slight pain. She kept her

limb elevated during the day, went to a dancing party that evening where she danced several times. She then remained in bed for two days with the limb constantly elevated, and in one week after the injury the ankle was perfectly normal, so far as the patient was able to tell, although I directed her to leave the plaster on still another week in order to support the ankle. She has had no trouble whatever since.

Case II. A mail carrier, 60 years of age, while making his daily trip, stepped from a high curbstone on to a pebble, forcibly inverting his foot; experienced a sudden, severe pain; walked home with difficulty, elevated his foot on pillows, applied bandages and ice-bag. For a few hours he had comparative relief, then the pain became worse and six hours after the injury I was called in to see him. When I came into the room he was suffering very severely and though a brave man he complained bitterly.

The whole ankle was markedly swollen and appeared about twice its normal size. It was moderately tender. I applied the bandage and he immediately experienced considerable relief. The leg was kept elevated that afternoon and night. The following day he walked on it, although still somewhat painful. The second day he was considerably better and the third day he went back to his work, and has had no further trouble from it. I directed him to keep the bandage on for four weeks.

Case III. Housewife, about 35 years of age, medium build, fell from a step-ladder a distance of twelve feet, severely injuring left ankle. Attending physician bandaged the leg and put patient to bed for five weeks.

Six weeks after the injury, when she had been on crutches for a week, I saw her. The ankle was markedly swollen and almost black from the extravasation of blood that had taken place. She was unable to place the injured member on the floor without severe pain, and the previous two nights she had been unable to sleep. I applied the bandage; the pain was immediately relieved. The patient slept that night and

the next morning she was able to bear some weight on the foot. In a week she walked without the crutches though still with a limp. In four weeks she had perfectly recovered, and the ankle has since been apparently as well and strong as the other.

Case IV. Nurse, 25 years of age, weighing about 150 pounds. Had 8 or 9 years previously severely sprained her ankle. She received the customary treatment and thought the trouble was perfectly relieved, until three years before I saw her when she entered a training school for nurses. She was unaccustomed to the hard work, constant walking, standing, stair climbing, lifting, etc., which nursing entails, and soon she had severe pain in the ankle that had previously been sprained. This continued to grow worse until one year after she entered upon her training when she was unable to continue her work. She was put to bed and a plaster case was applied. The condition improved greatly but after she again began to work the trouble returned, but was not so severe as at first.

Two years after this she consulted me and I applied the bandage. The relief was almost instantaneous. I left the plaster on for six weeks, and since then the ankle has been a great deal better than it had ever been since she began to nurse.

The question that all who have not tried this treatment are prone to ask, is, "How it is possible that so simple an appliance, or dressing, can give such excellent results?" I can answer this only in part.

In cases like the first one, where it is applied before the swelling has taken place, it prevents, or at least limits, the effusion of blood and serum into the joint and surrounding tissues. It partly immobilizes the joint and supplants, in a measure, the lacerated ligaments. It relaxes the muscles and gives the joint a feeling of security.

In older sprains, like the second and third above mentioned, it supplies the very best kind of massage possible. The massage which a joint gets by the unconscious, or subconscious motion under a dressing which exerts uniform pressure, besides being much cheaper and more accessible to

all, is infinitely better than the massage which the most experienced masseur can give.

This constant massage and motion rapidly dissipates the swelling by causing absorption of the effusion. It quickly and surely relieves the pain. It overcomes the tendency to stiffness. It restores the muscles and ligaments to their original vigor and strength. It reduces the period of treatment from weeks to days. It does all this while the limb may be used with reasonable comfort, and perfect safety, from the day the bandage is applied.

In this connection I wish to describe and demonstrate a modification of this dressing, which I have found very useful in treating congenitally weak ankles and moderate degrees of flatfoot. The first strap, instead of beginning on the inner surface of the sole, begins a few inches below the knee on the inner surface of the leg, passes down over the inner malleolus, under the foot, over the outer malleolus to within a few inches of the knee on the outer surface of the leg. Now two short straps are passed from the tendo Achilles, one on each side of the foot near its plantar border, then another long one, then two short ones, and so on until nearly the whole foot is encased. Over this a hard rolled bandage is applied.

In two cases of moderate flatfoot, now under treatment, I am unable to express myself as to the result. One has been fairly satisfactory so far; the other not at all satisfactory. But in neither case has the treatment been followed long enough to enable me to form an opinion. Four cases which I treated during the course of last year were perfectly relieved.

In two cases of congenital weakness of the ankles I have obtained instant relief. The pain, which was due to over-exertion of these relatively weak parts, has disappeared. In such cases, however, it may be advisable to apply the straps from time to time, as the patient may find it necessary to put her ankles to an excessive strain. This can be readily done by the patient herself when an extra exertion is anticipated.

Here, again, I attribute the success of the bandage to the uniform support which it gives the joint, and to the constant massage which it exerts upon it. This will, in time, greatly strengthen the joint by ensuring healthy development of the muscles, tendons and ligaments.

TWO CASES OF INTESTINAL OBSTRUCTION FOLLOWING VAGINAL HYSTERECTOMY, AND ONE AFTER PELVIC ABSCESS, WITH A SECONDARY OPERATION IN EACH CASE.*

BY A. GOLDSPOHN, M. D., CHICAGO.

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A very good and recent French thesis upon post-operative intestinal obstruction, by M. le Dr. E. Lenclas, enumerates cases of ileus as follows: 57 after ovariectomy; 16 after salpingectomy; 8 after abdominal ablation of uterine fibroids; 6 after abdominal hysterectomy; 7 after radical cure of hernia; 4 cases after celiotomy for strangulated hernia; 3 after operations for appendicitis; one each after hysteropexy, Cæsarean section and transperitoneal nephrectomy; and 37 cases of ileus after vaginal hysterectomy. Of the last named number evidently the largest proportion of cases have occurred in the French-speaking countries or after French technique of vaginal hysterectomy. But the following isolated and interesting cases, among others, in the literature of this subject, in which a secondary operation for relief of the obstruction was performed are certainly also included in that collection: L. Landau² reported a case in 1888 done with clamp forceps, and the associated intraperitoneal gauze drain. It was progressing normally. Forceps were removed after one and two days. Patient got up on the fourth day and walked about for a drink. Soon after symptoms of ileus and peritonitis followed, and progressed. On the seventh day a loop of ileum was found adherent in the funnel of

*Read at the Fiftieth Annual Meeting of the Illinois State Medical Society, Springfield, May 16, 1900.

the wound, and was liberated by abdominal section. But patient died next day.

P. Reichel³ records three cases of ileus after vaginal hysterectomy, occurring in 1887 and 1888, in Olshausen's clinic. No clamps were used in these cases, but the peritoneal cavity was left open and drained by gauze. In two of these a secondary celiotomy was done, but the first case died on the table on the seventh day, and the second one died twenty hours after the operation on the eighth day. Neither of them had passed gas or feces, aside from the contents of the colon, since the first operation. No rhythmical colic pains are mentioned, nor was there any temperature, nor marked tenderness of the distended abdomen. The first had a rapid pulse from the beginning, and both were nauseated or vomited early.

In 1887 A. P. Dudley⁴ (New York) did a vaginal hysterectomy for carcinoma. Hemostasis by ligatures and intraperitoneal gauze drainage. Six months later, while exerting herself, the patient felt something give way in her pelvis, and thereafter suffered from intestinal obstruction of variable degrees for four months; until a fecal fistula into the vagina developed spontaneously. This was successfully cured one year after the vaginal hysterectomy by abdominal section, and resection of the injured small intestine, performed by a California surgeon.

In 1889 H. C. Coe⁵ performed vaginal hysterectomy for an adherent cancerous uterus associated with a small ovarian cyst. Hemostasis was secured by four pairs of forceps, left in for forty hours, and an intraperitoneal and vaginal gauze drain was placed. Patient took fluids by mouth from the beginning, and was in good condition until the fourth day, when distention and rise of temperature occurred. These became less the next day after cathartics and enemata, but returned more severely, together with an accelerated pulse, on the sixth day, when the abdomen was opened and a portion of the ileum found adherent to the right edge of the wound and severely kinked. There was no extensive peri-

tonitis. The intestine was liberated, the abdomen irrigated, gauze drainage renewed into the vagina and the abdomen closed. Patient died next morning from shock.

In 1896 John A. Prince (Springfield, Ill.) did vaginal hysterectomy for chronic ovarian and tubal disease. Hemostasis by forceps, removed on the second day. Patient passed gas freely from the first day, and had two good bowel movements on the fourth day. But tympanites on the eighth and complete obstruction on the ninth day. On tenth day passed hand (in narcosis) up the vagina and fingers into the pelvis, breaking up the adhesions which appeared to be composed entirely of omentum. The doctor came upon a collapsed portion of small intestine, and made a lateral anastomosis between this and an adjacent distended portion of small intestine by means of a Murphy button within the vagina. Natural evacuations followed; but a free fecal fistula supervened. However, a spontaneous recovery resulted finally.

In a somewhat hasty review of the literature of the past twelve years, I have found only this one case (of Dr. Prince), in which a secondary operation was performed for ileus successfully within ten days after vaginal hysterectomy, and not merely for this condition, as a later sequel of that operation. To this case I can add another successful one by abdominal section, and also one unsuccessful one.

Case I. Mrs. F. S., aged 34 years, multipara. Total vaginal hysterectomy for chronic metritis (fibrosis uteri). Pyosalpinx of one side and cystic ovary of the other side. The uterus was high up, anteverted, and the broad ligaments difficult of access. Therefore, a broad ligament forceps was left on the upper portion of the broad ligament of one side, but in its base and in the entire opposite side prevention or antecedent hemostasis was secured by ligatures, with difficulty. The patient bore the operation well, and continued to be in a satisfactory condition for two days, except that the much desired passages of gas failed to come after the usually very effective enemata that were begun after twenty-four hours, and repeated at inter-

vals of four to six hours. Forceps removed after forty-eight hours, and about ten small, hourly doses of calomel and soda were next given, followed by several doses of magnes. sulph. These things started the vomiting, but did not secure the needed evacuations nor reduce the rising tympanites. There was no decided tenderness of the distended abdomen at this time (third and fourth days after operation), and no colicky pains, but much discomfort from the distention. The temperature during the first two days did not rise over 101° , and the pulse ranged from 90 to 110. After the first nausea from the anesthetic passed off, there was no vomiting; and liquid food was taken satisfactory up to fifty-six hours after operation, when the vomiting began and continued, with growing tenderness of the tympanitic abdomen, with some rise of temperature and a greater acceleration of pulse. High and somewhat forcibly retained half-gallon enemata of water, with essence of peppermint, afforded no real improvement. Hot fomentations and turpentine stupes gave only slight and temporary relief, and did not improve the general condition, which was rapidly growing worse, with the signs of peritonitis supervening upon those of ileus. Therefore, I opened the abdomen eighty-four hours after operation. The small intestine was severely distended and intensely injected, with loss of lustre, and some threads of fibrin upon the loops nearest the pelvis. There was a small amount of fluid exudate. A loop was adherent in the bottom of the cul de sac, where it appeared to have been compressed by the gauze drain, but it was not completely occluded and was easily raised. Through drainage from the abdominal incision into the vagina was introduced. Patient was now severely shocked, but hypodermics of strychnia and camphorated oil given alternately and liberally afforded temporary improvement. But no satisfactory evacuations from the bowels were obtained, notwithstanding numerous colonic flushings. The signs of general peritonitis grew continually, and terminated in death about thirty-six hours after the ventral section.

Case II. Mrs. P. P. C., aged 43. Patient fairly nourished and vigorous. But had some albumin in urine, and had had rise of temperature recently from the intrauterine septic condition. On January 25th, 1900, a large metritic and severely adherent uterus containing a necrotic and suppurating submucous fibroid, size of a large hen's egg, was removed by the vagina, together with the very adherent and degenerated adnexæ, and an ovarian cyst of the left side. (Patient had had repeated attacks of pelvic peritonitis previously.) The uterine arteries were secured by two ligatures on each side, and the upper portion of each broad ligament and the ligamentum infundibulo-pelvicum beyond the tube and ovary of each side was secured by a curved broad ligament forceps. A smaller forceps was also allowed to remain upon a branch of the right uterine artery, that was not caught in the ligatures. These forceps were removed after forty-eight hours. The raw wound surface in the pelvis was very large and the opening in the vaginal vault was carefully sponged out, while the patient's body was placed in a moderate Trendelenburg position to cause the small intestines and omentum to recede, and not to become entangled with the sponges and the subsequent gauze packing or drain which was introduced before the patient was returned to the horizontal position, thus giving the least possible chance for intestine or omentum to become mingled with it. The general condition of this patient was absolutely perfect for eight days. Very satisfactory passages of gas and stool came after enemata after twenty-four hours, and on every day after that until the end of the eighth day. Up to that time her pulse ranged between 75 and 90, and the temperature between $98 \frac{3}{5}^{\circ}$ to $99 \frac{4}{5}^{\circ}$, reaching 100° only once in the first forty-eight hours, with a pulse of 100. The excretion of urine was ample. After the immediate effects of the narcosis, there was no vomiting and the amount of nourishment taken and relished was very satisfactory. But with the ninth day, some distention and rhythmic colicky pains and some tenderness of the lower abdomen and

nausea and vomiting began, with a rise of pulse to 100, and temperature to $100\frac{4}{5}^{\circ}$. As a saline laxative, vigorous high enemata and turpentine stupes secured only a temporary improvement, and no gas had been passed for thirty-six hours, while the abdominal distention, colicky pains and vomiting were becoming worse. I fortunately decided to wait no longer, and performed ventral celiotomy on the tenth day, although the pulse at the time was only 100 and the temperature $100\frac{4}{5}^{\circ}$, per rectum. More than a pint of free fluid peritoneal exudate at once escaped from the incision. All the small intestines that came into view were intensely injected, and the peritoneal lustre was absent over extensive areas of their red surfaces, which bore strands of fibrin, chiefly along the lines of junction of two opposed surfaces. Two loops of ileum, with a mass of omentum, were adherent to the posterior edge of the vaginal wound, and were severely kinked and drawn upon. Detachment wounded their serous and muscular coats. When these surfaces were repaired by superficial stitches of fine silk, when the peritoneal exudate has been sponged out and the most suspicious parts had been treated with peroxide of hydrogen, the gauze drain into the vagina was renewed and three gauze drains from different points in the abdomen so placed as to also cover the sutured areas, were guided out of the abdominal wound, which was closed only about one-half. The patient bore the operation very well, with camphor and strychnia hypodermically. Satisfactory evacuations came in six hours afterwards. The pulse, at first not at all accelerated, rose to its maximum of 115 in eight hours, when the temperature was $99\frac{4}{5}^{\circ}$. A slight rise of temperature with a pulse near 100 continued for about five days. A large amount of fluid was discharged by the vaginal and the abdominal gauze drains. Abdominal wound was closed completely under anesthetic, about twelve days after it had been made, but the gauze drain beneath the bladder into the vagina remained a few days longer. The patient left the hospital and the city, thirty-two days after the first operation,

with all wounds closed, and in the best of spirits.

Case III. Mrs. A. J. S., aged 27; 11 para, plus one induced abortion at three months, six months ago. Before that generally healthy, and without hereditary taint. Patient submitted to instrumental interference on the part of a notorious midwife, for supposed pregnancy, soon after one cessation of menses. This was followed by a continuous and profuse bleeding for three weeks, with constant pain, and after fever, vomiting and persistent constipation had supervened, Dr. H. S. Barnard, succeeding a former attendant, recognized a large pelvic abscess and transferred the patient to the post-graduate hospital. On March 9th, I made a two and a half inch transverse incision in the posterior vaginal vault, with a Paquelin cautery, opened into the large multilocular abscess with my fingers, broke down some septa and evacuated at least a gallon of pus. The abscess cavity and the vagina were then packed with sterilized iodoform gauze, which was renewed in the vagina every second day, and was all removed after a week, when a double soft rubber drainage tube was introduced into the abscess cavity, extending within the vagina, almost to the vulva, so that an irrigator tube could be inserted into one of its terminal openings, and the cavity irrigated daily. Sixteen days after operation, when her general condition had become quite normal, a difficulty arose with the bowel evacuations. Calomel and salines were followed by nausea and vomiting, and the high enemata were often mostly retained, or came away in a drizzling manner, which, together with the contour of the peculiar abdomen, suggested a filled colon and an obstruction at the sigmoid flexure. This I thought to be the trouble and caused by some involvement of the sigmoid in the retracting abscess walls. This view of the disorder and the fact that a high rectal tube could, sometimes at least, be run up into or through the sigmoid, as shown by digital exploration in the vagina and the cul de sac, induced me to delay interference for about sixty hours after feces were first vomited. Pulse during this time ranged

from 104 to 130, and the temperature from 98.4° to 101°. On March 29th (twentieth day) I made an incision suitable for left inguinal colostomy, and at once came upon greatly distended and inflamed small intestine, which led down to an acutely flexed portion whose serous coat was pulled out in form of a band, that was attached to something in the abscess wall below. The obstruction was almost complete; but when the band was severed the collapsed and strictured portion of small bowel could be again distended by compression of the dilated gut; and stitches to repair the wound in the serous and muscular coats were all that was needed. But the sutured, as well as all the rest of the intestine that came within the wound, was clearly involved in marked peritonitis. As there was no liquid exudate, I placed no drain, but closed the wound entirely. The patient rallied from severe shock, and satisfactory bowel evacuations came spontaneously after five hours. Nevertheless, coolness of skin and extremities with a very rapid pulse and other evidences of severe infection and general peritonitis soon followed, and continued until death—seventy-two hours after the ventral section. Autopsy by Professor Zeit, Pathologist of the Post-Graduate Medical School, twenty-four hours after death, showed no free gas in abdominal cavity. The small intestines greatly distended and involved in general peritonitis, being coated with purulent fibrinous exudate. No apparent leakage of ileum at point of suturing, which looked greenish-black, and was surrounded with a purulent necrotic area. After the intestines were taken out and detached from their mesentery, a perforation, the size of a small coffee-bean, was found six and a half feet from the stomach end. The left side of the pelvis contained a large abscess cavity, with some greenish-yellowish pus that had an ammoniacal odor. In the walls of this cavity the small intestine and also the vermiform appendix were extensively engaged. Prof. Zeit says the operation was not successful, because it was done too late, i. e., upon structures already infected.

OBSERVATIONS.

1. According to the showing of Lenclos, ileus is more frequent after vaginal hysterectomy than after other abdominal sections. This is as we could expect, chiefly in all cases in which the abdominal or pelvic cavity is not closed; for in these cases two or three of the chief causes of peritoneal adhesions are quite generally present, i. e., (a) raw surfaces, (b) infection, and (c) a foreign body (the drain).

2. Inasmuch as we know that the physiological economy of the abdomen demands that the different portions of the small intestines shall be free to migrate from place to place, as is painfully illustrated by my third case, therefore any opening of the abdominal or pelvic peritoneal cavity is deplorable, that engages any portion of the small intestine to assist in closing the opening or wound. This is regularly the case in vaginal hysterectomy, as ordinarily performed, and as is necessarily done in all cases of this operation where there are extensive abraded surfaces, or where septic features are present in the case. But in all other cases of this operation where no intraperitoneal drain is needed, it is a just requirement that the peritoneal cavity be closed by a closure of the wound in the peritoneum by coaptation of its edges and that the use of hemostatic forceps or clamps, as far as it interferes with such closing of the peritoneum, should be avoided as far as possible. I do not, from my experience, find it necessary or desirable to close the opening in the vaginal vault, but prefer to let this and the broad ligament connective wound drain into the vagina.

3. Secondary operation for the relief of post-operative ileus, to be successful, must be performed early, before the mechanical obstruction has caused infection and paralysis of the bowel (peritonitis).

4. When this difficulty arises early—within three to four days after an abdominal or pelvic operation, i. e., the time in which post-operative peritonitis can also be expected—it can often be difficult to ex-

clude the latter, which also causes similar symptoms.

5. Symptoms and signs which speak mostly for ileus are: Abdominal distention without marked tenderness to touch or gentle pressure. The presence of rhythmical colicky pains. A slow pulse that is not wiry. Fecal vomiting. Vermicular motion of small intestine, seen or felt through the abdominal wall. Increased proportion of indican in the urine.

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IS PNEUMONIA CONTAGIOUS?*

BY J. T. M'ANALLY, M. D., CARBONDALE.

There is no subject more interesting to study or more difficult to master than that of pneumonia, and I need offer no apology to this Society for asking your attention briefly to one phase of this important question. The frequency of its occurrence and the fatality attending it renders the subject of pneumonia one of paramount importance in every aspect.

Pneumonia attacks all ages. It is found in all climes. It is the most wide-spread of all acute diseases. It recurs with greater frequency than any other disease.

Medical science has made in recent years no tangible progress in the treatment of pneumonia. Winter after winter it leads in the mortality tables. Year after year it stands next in the death list to the great white plague of all nations, tuberculosis, with possibly one exception that of the mortality of infancy from intestinal troubles.

In consideration of the above facts which I believe are substantially correct, we must recognize the force of Prof. E. F. Wells'

statement that pneumonia is the greatest medical problem of the day.

It is the purpose of this paper to present a brief argument bearing upon the contagiousness of pneumonia and chiefly to give some clinical observations which seem to substantiate this theory.

Medical literature is not lacking in well authenticated records of instances in which pneumonia has apparently been transmitted directly from one person to another. However, the authors of our standard works on the practice of medicine have but little, if anything, to say on the subject. That contagion in this disease is comparatively rare cannot be denied. That one isolated case in a family is the rule we must admit; and these two facts undoubtedly lead many to disregard or forget the lesson of the exceptional case, and erroneously conclude that no contagious element exists. It is the exceptional cases that force upon us the true nature of this most dangerous disease.

That pneumonia has many of the essential characteristics of a contagious disease there can be no doubt. In the first place it may appear in epidemic form. This fact as in the case of typhoid fever argued in favor of its infectious or contagious nature long before any specific causative agent was discovered. Epidemics of pneumonia have been recognized from the time of Lænnec and Grisolle down to the present, both in this country and in Europe. House epidemics are not uncommon and there are numerous instructive records of epidemics among ships crews and in institutions and prisons and garrisons.

In their works on *The Practice of Medicine*, Professors Osler and Anders both refer to a remarkable and instructive report of epidemics of pneumonia occurring in a prison population of 735 in which there were 118 cases. Of this number 25 were fatal. Prof. Osler relates an instance coming under his personal observation of a local outbreak in which three members of a family were consecutively attacked with malignant pneumonia. Prof. Anders likewise mentions one case he saw in the winter of 1894 where three cases developed in rapid succession in one family, a sister of char-

*Read at the Fiftieth Annual Meeting of the Illinois State Medical Society, Springfield, May 16, 1900.

ity, he further states, after nursing two of the patients faithfully for a period of ten days was also attacked and died of the disease.

Prof. Tyson in writing on this subject relates an instance of a ship's crew of 815 in which 410 were attacked in rapid succession.

Epidemics of pneumonia such as I have alluded to may be explained upon the hypothesis of a common source of infection or more probably by a causative germ which passes directly or indirectly from an infected person to a prospective host.

Secondly, etiologic and pathologic conditions in pneumonia are such as to favor and facilitate contagion.

All of our more modern authors so far as I have observed class pneumonia as an infectious disease. It is understood that I refer to acute lobar pneumonia. It may be stated positively that pneumonia is caused by the micrococcus lanceolatus, the diplococcus pneumoniae of Fränkel. I deem it unnecessary before this Society to argue this point. I believe there is a general concensus of opinion among bacteriologists as to the exciting cause of this disease, the germ being found in the prune juice sputum, in the saliva and in the blood and other secretions of the body.

It is well known also that in many cases other micro-organisms are present producing a mixed infection; and it is altogether probable that the participation of the other pathogenic cocci lessens proportionately the typical character of the pneumonic process. Doctor Andrew H. Smith, of New York, published in the Medical News of December an article on pneumonia which has elicited much favorable criticism. He holds to the commonly accepted view that the pneumococcus is the true causative agent, but gives expression to a pathology of the disease different from that commonly held. He says: "Pneumonia is not an inflammation of the lungs. You can create a pneumonitis at will in any one of a dozen or a hundred ways. There is only one way in which you can produce a pneumonia. If you inject a little active pneumonic sputum through the chest wall into the sub-

stance of a lung you will inevitably cause genuine pneumonia with all that clinically belongs to it. Inflammation is a perverted nutrition but in pneumonia the nutrition of the pulmonary parenchyma does not suffer. If then in pneumonia we are not dealing with an inflammation how are we to characterize the local process? The answer to this is that we have a process of germ culture going on in a culture medium which is supplied from vessels that do not participate in the nutrition of the part, but at the same time are susceptible to the action of the specific irritant furnished by the specific germs in question. Each air cell thus becomes in effect a living test tube in which a colony is growing the exudate serving as a culture medium."

In view of the pathologic conditions existing in the diseased lung as above described necessitating frequent and profuse expectoration and when we remember that the sputa are heavily laden with the germs of the disease we can readily understand that thorough dissemination of the pneumococci is most readily and certainly accomplished.

It is well known that the micrococcus lanceolatus is most virulent when obtained immediately and directly from a diseased body and it is at least a logical conclusion to suppose that when virulent specific cocci are introduced into the mouth or upper air passages of a susceptible individual pneumonia will follow as effect follows cause.

It has been found that inspissated pneumonic sputum retains septic properties after exposure to diffuse daylight for a period of nineteen to forty-five days. Exposure to direct sunlight for a period of nineteen to forty-five days lessens but does not destroy the virulence of the sputum.

The transmission of fresh and virulent micrococci may be effected in different ways. They may pass into the mouth, nose and pharynx in inhaled dust containing dried pulverized sputa, or they may be conveyed to the mouth or nose by hands or handkerchiefs soiled by fresh or dry sputa from the patient.

It is obvious that nurses and other persons who may be in close and continuous

proximity to pneumonia patients are most exposed and such exposures are most pronounced in rooms that are crowded or poorly lighted and ventilated and when the expectoration is deposited carelessly about the room. Unhygienic surroundings undoubtedly favor the development of pneumonia, and it is under such conditions that its contagious character is manifested. This is illustrated by the following cases, which occurred in my practice in the winter of 1894: I was called to see Mr. T. E. and wife, and found both suffering with acute pneumonia of an exceedingly dangerous type. The husband's attack was subsequent to that of the wife and he had been sick three or four days when I was called. I found the two patients in a small house situated on the border of a large creek bottom. They occupied the same room, which was about 14 feet square, and contained two beds. This room was the living room and principal sleeping room for a family of seven, and was heated by a stove. On my second visit the following day I found two new cases. They were grand children six and eight years of age. The following day the father of these children was attacked, making the fifth case and they all occupied the two beds in the same small room, as this was the best arrangement that could be made at that time. Three days later, the mother of the children was likewise attacked, being the sixth case occurring in rapid succession in a family of seven. These cases were all of severe type and two were fatal, the two grand parents, aged about fifty-eight and sixty years. Closely connected with the history of these cases is that of another family, Mr. S., living about one mile distant. Mrs. S. was the mother of Mrs. E. of the afflicted family just referred to. She came to her daughter's assistance and aided in nursing the stricken family and when the daughter was attacked, she was at her bedside faithfully day and night for a week. Then she herself was attacked and was taken to her own home. In from three to five days following, there occurred in her own family three other cases of pneumonia.

These were genuine cases of lobar pneu-

monia of moderate severity and all recovered. There were no other cases at this time in this locality. In February, 1899, I was called to see J. S., male, age 50, married, living in a 4 room cottage, the rooms of which were small and poorly ventilated. I found the patient with characteristic symptoms of pneumonia. He was a drayman and had been much exposed. I had known him previously to be of frail constitution, frequently ailing, the body poorly nourished and usually thinly clad. The prognosis in this case was unfavorable from the first. After he had been sick four days, his wife who had been his nurse both day and night was prostrated with the same disease. Two weeks previous to this attack of pneumonia, she had had a miscarriage which left her extremely anemic, thus reducing her powers of resistance to the minimum. The disease resulted fatally after five days illness. Previous to the death of this patient, her mother who was a member of the household and about seventy years of age was also attacked with pneumonia. Nothing but the most unfavorable prognosis was made as toxic symptoms and extreme prostration developed early. Of the three cases occurring successively, in this family, all were fatal.

A young man who acted as night nurse for the cases just described was taken sick after a period of one week nursing. He had a light chill and moderate fever with chest pains and some cough. These symptoms were relieved by treatment and after three or four days had entirely disappeared. Whether this was a case of so called larvan pneumonia, or not, I am unable to say, but the symptoms would indicate that it was. During the illness of this young man, there was present in the room with him a younger brother with an attack of measles. There developed in this case very soon a severe form of pneumonia, from which the boy never recovered.

This case developed February 14th. On February 18th, two other cases of pneumonia developed and on the 21st I found another case, a sister, and on the following day still another, the mother. In this family of seven, there occurred in rapid succes-

sion five characteristic cases of pneumonia of severe type, and one case in which the symptoms were less characteristic. Of this number three were fatal. The house where this family lived was about two blocks distance from the one last mentioned. It was well located, there were no other cases of pneumonia in this house prior to this sickness; the rooms were small and it was necessary for the patients to occupy the same room.

Dr. M. Etherton, of Carbondale, furnishes me the following account of cases occurring in his practice during the past winter:

R. J. M. and family, living in a two room cottage in the country, the house being located on low ground. The first case of pneumonia occurring in this family was that of a young woman of 18 years of age. Three days later her brother was attacked and five days later the father. These were typical cases of lobar pneumonia of dangerous type, one of which, the father, resulted fatally.

In February last, there occurred seven cases of pneumonia in the family of E. B., living four miles south of Carbondale. This was a large family living in a small house located on a high hill. The first of the family attacked was a boy 16 years of age. One week later the father and a daughter were attacked. Then followed in quick succession the case of another son, two daughters and finally the mother. There was but one member of the family that escaped. Of these seven cases, one died and that the father. During the illness of the father he was visited by W. B., a brother, who assisted in nursing him. This brother was attacked with pneumonia on the third day after exposure, and a little later his daughter also took to her bed with the same disease. Both of these cases recovered.

Dr. J. C. Stewart, of Anna, gives me the following history of a series of cases in one family which came under his observation during the month of February, 1900. The first case was that of a young woman who had a well defined lobar pneumonia affecting right lower lobe. Five days later a sister was attacked and about the time crisis

occurred in this case, a brother was stricken down with the same disease. These three cases occupied the same room. All recovered. No other cases occurred in that locality during that season.

Another series of cases reported by Dr. Stewart occurred in the family of Mr. R., a well to do farmer who lived in a house located on high ground bordering upon a large creek bottom. Mr. R., age 60, was the first to be attacked. One week later his wife was taken down and a little later a daughter and son. These were cases of gravest character. Of the four cases occurring consecutively, three, the two parents and the daughter, were fatal.

Dr. A. M. Lee, of Carbondale, has given me the following histories of cases occurring in his practice during the past winter:

Case 1. J. S., living in a log shanty with the floor on the ground, was attacked with pneumonia. His daughter, after nursing him for a period of one week, contracted the same disease. Both recovered.

Case 2. The family of Mr. R., living in a house of three rooms with unsanitary surroundings. Charles R., a young man of 21 had a characteristic attack of lobar pneumonia. On the ninth day of his illness his brother William was taken down with the same disease and about the time crisis occurred in this case, a sister was likewise attacked. All recovered.

Lop and Monteux (*Bull. de l'Acad. de Med. Sept. 6th, 1898*) report an epidemic of 25 cases of broncho-pneumonia. These occurred chiefly in three houses with unhygienic surroundings. They conclude that these cases developed by means of contagion through the sputum.

A study of cases such as I have just mentioned compels one to believe that under certain conditions one person may contract pneumonia from another. Not only does etiologic and pathologic conditions teach us that contagion is possible in pneumonia, but clinical observations give to the theory its strongest support. It is true the contagion is mild and erratic. But reasons may be assigned for this. All contagious diseases do not subscribe to the same laws,

They differ greatly owing to differences in the pathogenic micro-organisms which produce diseases and the different soils in which they develop and complete their role of life. The contagium of such diseases as smallpox and measles spreads with the greatest ease and readily finds a suitable soil, while that of pneumonia and tuberculosis must escape from the body by a single channel, and with much uncertainty and difficulty is implanted on proper soil. For this reason pneumonia usually occurs in isolated cases and it is only under unusual and extraordinary conditions that its contagious nature is apparent.

CONCLUSIONS AND INFERENCES.

1st. Pneumonia is an acute specific and mildly contagious disease, produced by the micrococcus lanceolatus involving the vesicular structure of the lungs in an exudate of greater or less extent and attended by severe and often dangerous constitutional symptoms, due to the toxins produced by the infecting micro-organism.

2d. The isolation of cases should always be recommended. No two cases should occupy the same room at the same time. The aged and children, owing to the large mortality among this class of cases and to the enfeebled powers or resistance of the former, should be excluded from the sick room.

3d. The room should be large and should be kept well ventilated. Pure air is most essential for the pneumonia patient. The danger of vitiated air should be constantly kept in mind. It is a point to be doubly guarded, because of its harmful effects upon the patient and its dangers to the attendants.

4th. The prompt and thorough disposal of all pneumonic sputa is important. It may be harmless today but dangerous tomorrow. Prophylaxis is clearly one of the most important points to be considered. Since the true nature of pneumonia has been demonstrated by the bacteriologist we may the more readily appreciate its dangers and guard against the septic possibilities resulting from pneumococcic invasions.

5th. The rapid increase of our know-

ledge of bacteriology and the introduction of specific remedies affords ground for the hope that soon we may discover a treatment for pneumonia as certain and effective as that of antitoxin for diphtheria or quinine for malaria.

HAVE WE SMALLPOX?*

BY H. C. MITCHELL, M. D., CARBONDALE.

We have undertaken to write this paper, not because of our knowledge of smallpox, but for the sake of honest investigation and to get at the truth of the present so-called epidemic of smallpox.

There has been enough written for and against its being smallpox by different writers, if compiled, to make several volumes. Many of those who have written are men of wide experience in the treatment of the disease, and nearly all of that class of writers give their testimony in favor of its being smallpox. Dr. James Nevins Hyde, of Chicago, says, in his open letter addressed to the State Board of Health, "There is no controversy possible in the matter herein considered." The doctor's argument is logical, and he treats the subject in a very able and exhaustive manner. He seems to have an answer for every phase of the question. In fact, he reminds us somewhat of the man who lost his pocketbook. On hearing that his neighbor had found one, he went at once to his neighbor to claim the pocketbook, and when asked by the neighbor, if his pocketbook was a long one or a short one, a broad one or a narrow one, a red or black one, he promptly informed his neighbor that his pocketbook tallied with all these descriptions, and was sure that it was his pocketbook. While Dr. Hyde is a man of unimpeachable character and reputation, yet we differ with him somewhat when he says, no controversy is possible on this question. There is always room for controversy when trying to make honest investigation and arrive at right conclusions, and yet we do not wish to be understood as differing with the doctor as concerns the diagnosis.

*Read at the Fiftieth Annual Meeting of the Illinois State Medical Society, Springfield, May 16, 1900.

Since smallpox has always been regarded as such a formidable disease, not only by the general public and less informed members of the medical profession, but by those who have had wide experience in its treatment. Now that we have an epidemic so mild in character that its fatality is almost nil, when such a state of affairs exists you can rest assured that the diagnosis of smallpox will be questioned by the average physician and laity, and if we convert them to our way of thinking the proofs must be very convincing. The doubt manifested in the diagnosis of the present epidemic is not because the symptoms are not identical with those of former epidemics, but because of its mildness and little fatality.

We must confess that we have had but limited experience in the treatment of smallpox, but have been greatly interested in the present epidemic. Since we have decided to write this paper we have read all the literature that we could find on the subject, and the conclusions at which we have arrived are that it is by far the mildest epidemic of which we have any authentic account. Dr. William M. Welch, of Philadelphia, who has wide experience in the treatment of smallpox and has treated in the past 29 years 5,500 cases, says in his very able article in the Philadelphia Medical Journal, "Two or three years ago smallpox of an unusually mild character appeared in the Southern States and the disease was variously regarded by the physicians as chickenpox, smallpox, impetigo contagioso and Cuban itch. Some thought it was a cutaneous affection of some new and strange variety. The profession was about equally divided on the question of smallpox and chickenpox. The disease was regarded as infectious. Wherever it was seen it was of the same mild type. It has been claimed that the disease was brought into the United States from Cuba and Porto Rico as a result of the Spanish American War. Dr. Welch says, in explanation of the mild type of the affection, that it has been suggested that smallpox in the tropics is less severe than in a cold climate, but sees no reason why the disease should

not assume its old and familiar form when the infection is transferred to the middle and Northern States, but up to the present time no such tendency exists. The disease has now spread over nearly the entire United States, and has been here for something over three years, and it can be truthfully said, that it still continues in the same mild form as when it first appeared in this country. Dr. Welch says on page 974 of his article, "I have never seen cases present so uniformly mild a type as during the present year nor have I ever been able to find in the vast amount of literature published on this subject any account of a similarly mild epidemic in this or any other country." He goes on and gives a record of 128 cases treated in his hospital without a single fatal case. In comparing the mildness of the present epidemic with that of former epidemics, he gives the statistics showing the death rate for the epidemics of 1894 and 1895 was only 18 per cent., but gives the average death rate in their hospital in the unvaccinated for the 24 years previous at 58.40 per cent., and claims the death rate for the nineteenth century according to all valuable statistics at 40 per cent. It would be erroneous to state that the present epidemic originated in Cuba and that its little severity is due to its having originated in that warm climate. In an article written by R. S. Woodson, Asst. Surgeon of the United States Army, he says that in the town of Gibara alone in the year of 1898 there were 250 deaths from smallpox. He further states in his report that the disease appeared in Aguas Claras in March, 1898, and by September of the same year there were 4,000 cases in this district alone, with an average death rate of 30 per day. We conclude from this report that the disease did not prevail as such a mild epidemic in Cuba at the time it was introduced into the United States. Of the cases that I have treated and those that have occurred in the counties of Jackson and Williamson, there would probably be more than 300, and I think I can say truthfully that there has not been a single death from uncomplicated

smallpox. To my knowledge, there has only been one death, and that was an elderly woman who had been bed-ridden with disease for many weeks. In the face of the fact that these cases were treated largely by physicians with no experience with this disease, would indicate that the disease was of an exceedingly mild type. As to the diagnosis, it seems there can be no doubt. Dr. Hyde in his open letter has certainly met every argument to the contrary. Judging from his accurate description, the ear marks are too plain to be doubted. One of the strong proofs of its genuineness is the certainty with which it can be checked in a community by vaccination. It has prevailed in Jackson county for over a year, and in Carbondale (except at intervals of a few weeks) since the summer of 1899. When it makes its appearance in some portion of the town, the people living in that family and community will nearly all be vaccinated. The result is, no more cases make their appearance and the disease is promptly checked. In a few weeks the disease is brought back to the town again from some other community and in this way is kept going for an unlimited period. But let us ask ourselves the question, why is it so unprecedentedly mild in character? Dr. Welch says: "Why smallpox in the unvaccinated should present itself so generally in the present exceptionally mild form is a question I shall not undertake to answer."

Its mildness cannot be due to its having originated in a tropical climate, because it has been clearly shown that in Cuba where it was supposed to have originated the death rate was relatively large. It cannot be due to climatic conditions in our own country, because it prevails in the same mild type both North and South. It cannot be due to the fact that the disease is losing its virulency from the fact of repeated vaccinations for generations, because in some states and territories of the West for the past year the death rate from smallpox has been quite large, and now that the present epidemic has reached that portion of the country, we see the two epidemics going side by side,

one as a mild epidemic in which there is practically no death rate and the other prevailing in a deadly form. Why this condition of affairs? Would it be explainable in the ground that the disease is produced by several germs that differ as to the character of their virulency? For example, the pus-producing germs streptococcus and staphylococcus? We might attempt to explain it on the hypothesis, that this disease like measles, diphtheria, scarlet fever and such diseases often appears in mild form. This to our minds would not be satisfactory explanation, because in these diseases when they appear in their mildest form, there will occasionally be some malignant cases and deaths, while in this instance we have a more fatal disease than any of the others mentioned that has been running for three years with practically no death rate. Will some one be the Moses to lead us out of the wilderness?

APPENDICITIS—PERINEAL OPERATION IN THE MALE AND VAGINAL INCISION IN THE FEMALE.*

BY E. M. SUTTON, M. D., PEORIA.

If each case of appendicitis could be seen by a physician upon the appearance of the first vague symptoms, and the beginning attack recognized, the consideration of incisions (for the dread conditions resulting from such destructive inflammation) would not become necessary, if we grant the success of prompt medical management as well as the more decided success of prompt surgical treatment. It is not the simple uncomplicated case that ends fatally under surgical treatment, but the case which has progressed unrecognized by the attendants—uncontrolled by medical means until life has been seriously endangered by the results of destructive inflammation.

The beginner in operative treatment of this disease is flushed with success when he secures himself by interval or very early operation, while, later, upon attempting to

*Read at the Fiftieth Annual Meeting of the Illinois State Medical Society, Springfield, May 16, 1900.

save otherwise hopeless cases, chagrin and disappointment await him.

Granting the fact that cases seemingly desperate do recover under palliative treatment, a larger number of this class, according to Ochsner, Richardson and Deaver, than would be possible under operative management, there remains a large number of cases which end fatally unless some measure is adopted to secure immediate and complete relief from these desperate conditions. I refer to perforative appendicitis with resulting general peritonitis—the abscess not localized, or if localized, is very extensive—central or pelvic—communicating with the lumen of the intestine through the appendix perforation, or through a secondary opening remote from the appendix.

In a case with large, fleshy abdominal walls, the appendix lying toward the median line, or the pelvis, with the conditions referred to, it is certainly a dangerous procedure to attempt the removal of the appendix by the methods at present adopted by operators. The more or less effectual attempts of nature to localize the seat of the disease must be disturbed, the omentum raised, the intestines moved to one side or the other, and work be done at the bottom of a deep hole, drainage being made from the most pendant fossa. In such a case, foul smelling, intensely septic fluid must drain up hill through thick abdominal walls, converting the freshly made wound into a septic one. It must be remembered that this foul smelling fluid is so intensely septic that antiseptic flushings are powerless to counteract the results of bringing it into contact with freshly made wounds, or its introduction to healthy peritoneal surfaces. The direct entrance of a small quantity of this septic fluid into the circulation would produce speedy dissolution and the more slow absorption a certain fatality.

In the *Journal of the American Medical Association*, Vol. 30, P. 1438, I reported a case of perforative appendicitis, Mr. Frank Allen, in which the symptoms became very desperate, from over distension, intestinal stasis, and profound sepsis. The

patient, a man 35 years of age, weighing about 200 pounds, with large fleshy abdomen, was certainly, to all appearances, beyond surgical aid by the usual method of incision through the abdomen, since most of these cases operated on terminate fatally. It was therefore deemed necessary to reach this collection of fluid located in the pelvis in a manner which would give rapid drainage. This could have been done by perforating the rectum high up, but such a procedure seems somewhat unsurgical, to say the least, therefore perineal incision was decided upon and made after method of Kocher for operation on the prostate gland. Beginning at the inner side of the right ischium a curved incision is made around the perineum, about 5 c. m. in front of the anus, extending to the other side. The fascia is divided transversely. Separating the transversi muscles and hemorrhoidal vessels and nerves laterally, the deep fascia is divided as it dips down to unite with the superficial. Blunt dissection is made with the end of the index finger, keeping in the median line. By careful blunt dissection in this line (keeping a sound in the bladder as a guide, and, from time to time, inserting the gloved finger in the rectum as another guide) the pelvic cavity is reached. Fluids collected there will escape as I have demonstrated on the cadaver. The exploring finger can then feel the intestines above, the bladder in front, and the rectum behind. A further exploration, with a little counter pressure from above, will reveal the caput coli and appendix.

In the female, vaginal incision is the same for appendicitis as for other operations through the cul de sac of Douglas, and the exploring finger can, with counter pressure above, be made to feel the region of the appendix, and, when the appendix dips downward and inward, it can also be felt and removed. If presenting otherwise it may be left to nature.

Upon reaching the pelvic cavity, in the case referred to, a great quantity of fetid fluid mixed with feces was forcibly expelled through the wound with a force carrying it several feet away from the patient.

Searching the cavity carefully with the finger, an inflamed appendix, adherent to the intestines, and these intestines, also inflamed and adherent formed the boundaries. All the symptoms disappeared within a few hours after the operation and rapid uneventful recovery took place. The wound was entirely healed at the end of three weeks, two weeks after the removal of the drainage tubes, and after two years the patient remains sound and well.

I refer to this case again because it illustrates the advantage of drainage from the lowest part of the abdomen, where, in a case of peritonitis, septic fluid is sure to collect. We all know the advantage of pelvic drainage in operations in suppurative diseases within the female pelvis, and it seems to me that this advantage may also be obtained in the male. I have since had occasion to regret that I did not adopt this method in another case where drainage was attempted through abdominal incision, with fatal result.

Three cases in the female in which perforative appendicitis was followed by abscess localized in the pelvis and operated on through the cul de sac have occurred in my practice within the last year and these, also, indicate the value of pelvic drainage. The first, a young girl of 15, recovered after vaginal incision through the cul de sac of Douglas and drainage, without the removal of the appendix. The second, a married woman, 26 years old, was operated on in the third week of the attack. The appendix was removed after incision through the cul de sac by means of twisting it with the forceps. Rapid recovery followed. The third case, a young lady, aged 22, very emaciated (the blood count, made by Dr. Kanne, showing hyper-leucocytosis) was operated on in the eighth week of the attack. She had a fecal abscess filling the entire pelvis extending from the right across to the left iliac fossa, on a level with McBurney's point. She was under treatment five weeks after the operation with drainage through the vaginal incision, and is now up with slight drainage.

In these cases bulging of the vagina was

absent, nor was there any indication of the abscess breaking, this aiding in the diagnosis between pelvic suppuration originating in the pelvic organs, and suppurative conditions following the perforation of the appendix. In the last case the abscess was situated high up pushing the uterus down and to the left.

No other incision would have answered so well the purpose desired in these cases as the upper boundaries to the abscesses were formed by the matting of the intestines and omentum. In each case the perforating bodies were fecal concretions which, with the appendix removed from Case 2, are here presented for inspection.

These cases, because of the successful outcome, have been of interest to me, and, while I do not wish to be understood as advocating perineal or vaginal incision in all cases, I wish to advocate it in those cases where the surgeon can determine that it is the shortest route into the fecal abscess, for the following reasons: First—Abdominal pressure, so necessary to bowel action after operations within the abdomen, is not interfered with as it is when multiple incisions, with Mikulicz drain, are employed. Second—Drainage is down hill and from the most pendant fossa, instead of up hill through abdominal walls, where vomiting and moving may dislodge the tubes or interfere with perfect drainage. Third—The danger of interfering with the more or less successful attempt of the peritoneum to combat the infection, is minimized instead of increased as it is by entering from above.

CALIFORNIA AS A HEALTH RESORT.*

BY JOHN H. HOLLISTER, M. D., CHICAGO.

It was no ordinary event when California became an integral portion of our National domain. Vast and varied as its commercial relations with the Orient are yet to be; rich as it is in its yet undiscovered treasures, and fruitful as its fertile valleys are, it has

*Read at the Fiftieth Annual Meeting of the Illinois State Medical Society, Springfield, May 18, 1900.

a wealth of climate still, which well-nigh outweighs them all.

At once unique in its position and topography, there is hardly a climatic condition in the world but may find its parallel in the single State of California.

Sahara is not more arid than is its southern portion which lies east of the San Bernardino range of mountains, in conjunction with southern Arizona; while on many a mountain range its peaks are covered with perpetual snow. Between these two extremes every intervening temperature may be found. The never failing ocean breeze from the broad Pacific tempers the heat by day, and the cold by night, securing conditions which are ideal, and which are but little varied throughout the year.

I shall not presume in this brief paper, interesting as they are, to discuss the causes which conspire to produce such varied climatic conditions in so limited an area of country, but simply express the conviction that for the needs of invalids, there are no foreign climates superior to our own, and that when California became a part of our domain we secured a series of health resorts precisely suited to the necessities of our rapidly multiplying millions of population, the value of which will be more and more demonstrated as the years go by.

In considering California as a health resort, there are three questions, the discussion of which will form the basis and structure of this paper.

First, the persons to be benefitted.

Second, the locations suited to their various needs.

Third, the proper care of such invalids.

Let us consider these topics in their order:

First—The classes of persons to be benefitted: Of these there are four, which, I think, deserve especial consideration.

First, infants; second, aged people in delicate health; third, those who by excessive labor either mental or physical, have been over-worked until they are over-borne; and fourth, persons strongly pre-disposed to, or who are already suffering from certain diseases. I have purposely placed infants

in the first class, since by infant mortality, more than half of our population is removed before the fifth year, and because if preventive medicine may accomplish any good for mankind, here surely is one of its most promising fields.

While much may be done at home to ameliorate the conditions which conspire to cause the premature death of infants, there are others which, by the wisest direction, cannot be controlled, though we may instruct those who have them in charge, never so well, as regards food, clothing, cleanliness, and ventilation; there yet often remains one potent factor which may accomplish a fatal result, despite the best directed effort, and that is a temperature excessive in heat, and unduly prolonged, especially if it be associated with a humid atmosphere as it so often is in the Atlantic cities, and in the Mississippi valley.

There are localities in Southern California where the heat is rarely excessive, where an infant properly shaded, may be subject to sunlight and fresh air from morning until evening, and where it may have refreshing sleep at night under light covering.

Second—The aged that are enfeebled have much the same requirements. The days of continuous sunshine invite to prolonged out-door exposure. The nights are cool, and are apt to insure sufficient sleep. There are no sudden and severe atmospheric changes, which so imperil those who, by reason of age or infirmity, have but a minimum of resistant energy.

When we consider the numbers of our aged people who succumb to the depressing influence of cold, and especially to the influences of sudden changes such as give to a green Christmas a fat graveyard, and to the breaking up of spring such an undue mortality, it is not difficult to understand that in the absence of such climatic extremes the lives of aged people may be materially prolonged.

The third class pertains to those who have prematurely broken down under the pressure of excessive work, of mind or body, or from both combined. To such Cali-

fornia offers special facilities for that rest, and time for recuperation which often times are their sole requirements.

Upon the mountain side; in pleasant hamlets; or upon the ranches, one may find seclusions where stillness is the only thing that can be felt. The "camper-out" especially, if he be an expert, may ply the hunter's vacature with horse, dog and gun in quest of game. He may either be in telegraphic touch with the world, or he may cut the wires while it moves on its way without him. Books need not fail him, nor social companions, if he so incline; most likely he will gravitate to some ocean resort, and there sleep himself into recovery, lulled to rest by the music of the tides.

We are not for a moment to assume that any climate in and of itself is curative. The power for recovery must be inherent with the patient. Environments at best are only helpful.

Given certain recuperative powers in the individual, what are the conditions which may best promote recovery? Prominent among these are: First, a dry soil, with freedom from soil exhalations. Second, a mild atmosphere, pure in quality and nearly uniform in temperature. Third, exposure, with personal comfort, to continuous days of sunshine. Fourth, wisely directed daily physical exercise. Fifth, a residence isolated from crowded apartments, with good ventilation, proper drainage, and plenty of sunlight exposure. Seventh, a liberal bill of fare well selected and properly prepared. Eighth, pleasant social relations and diverting pastimes.

These are the ideal factors which promise most of helpfulness, although in no single locality can one expect to unite them all. Still I think we may more nearly approximate such conditions in California than in any location which I have known elsewhere.

But let me here emphasize the fact that not all who seek relief by a change of climate will realize their hope. With environments as perfect as they can desire there are many, to whom such change will bring no special relief. While there are thousands upon the Pacific shores who went

there as invalids, and are greatly benefitted and often times perfectly restored, there are other thousands who have returned to their homes still invalid, or have there found their last resting place. While in the incipency of pulmonary diseases, this change of climate may be strongly urged, it would seem worse than idle to break up home ties, and deprive patients of home care and comforts for a temporary sojourn among strangers, when the disease is so far advanced as to render the result evidently only a question of time. Much may be done in any home to secure the environments to which we have alluded and often times the loss sustained by change will by far, outweigh the gain.

Let us next consider the locations best suited to the needs of various patients. For infants, for the aged, and for the over-worn, the general requirements are essentially the same, and may best be found in Southern California.

The high ranges of San Raphael which stretch eastward from the ocean beach at Point Conception, forms a distinct dividing line between Northern and Southern California, and so shuts off from lower California the colder north winds as to give to it a semi-tropical climate. Here, upon the ocean shore, at such points as San Bernardino, Santa Monica, Redondo, Catalina, San Diego and Coronado Beach, the summer days are delightful and the nights refreshingly cool. In winter such location as Los Angeles, Pasadena, Riverside, Redlands, and in numerous hamlets among foot hills, which also have the benefits of the sea breezes, are especially desirable, and one may there seek seclusion if he wishes; or at such points as Los Angeles and San Diego be in constant telegraphic touch with the world and with veritable city life.

There are peculiar ocean currents which I have not the time to describe, which have a remarkable influence upon the climates at San Diego, and which renders it a specially desirable location for invalids, especially in winter. The heat, where one is shaded, is not excessive by day, nor are the nights too warm for refreshing sleep under

covers. These temperatures at this locality are remarkably uniform, during the entire year. They rarely fall below fifty degrees and rarely rise above seventy in the shade.

There is no deleterious soil exhalation with which to contend and the ocean fog, which sometimes flows inland, never seems oppressive, is never a discomfort, and is soon dispersed by the rising sun.

The air is so dry that sensible perspiration is rarely noticeable, and excessive secretions from mucous membranes are almost uniformly diminished. For consumptives the climate of San Diego seems preferable to any other.

For many invalids a residence in Northern California will prove more beneficial. The rains here are more abundant, the atmosphere is more humid, and in most respects the conditions are more nearly like those which obtain in the Mississippi Valley.

The point of especial advantage is this: That west of the Sierra Nevada range the temperatures are controlled by the daily inflow of warm air from the ocean. The result is that frosts, at most points are hardly known; the seasons are long, and the luxuriance of vegetation is remarkable. Indeed, in the valleys drained by the Sacramento and San Joaquin rivers, by reason of the peculiar influence of a lower coast range, the temperature of the day is preserved well into the night; vegetation growth is hardly arrested at night, and the various fruits mature several weeks earlier than in lower California. At times the rains are copious but in the main the climate is like that of our pleasantest spring and fall months. The severity of our winters is unknown.

The remaining question to be considered is that of the personal care of invalids. The same general rules to be observed are such as apply to invalids elsewhere, and for each patient the course of treatment should be so regulated as on the one hand to develop strength by proper physical exercise, and on the other to prevent undue fatigue from over-exertion.

Usually the first appreciable benefit de-

rivable from a change to this climate is the ability to sleep well. The second is that of a gradual improvement of the appetite. The third, an appreciable increase of strength, so that the days may be given to sunlight, exposure, and out-of-door exercise, without undue fatigue, and the nights to restful sleep.

If one desires to avoid the rigor of our climate in winter, if a uniformly mild climate is to be sought for the infant and the aged; if a land is needed where the weary may find rest; and for invalids in the incipient stages of diseases; for such California offers superior inducements as a health resort. Almost every tourist is at first not a little surprised and often not a little discomfited, when called to endure a temperature of 60 degrees at night, and where little or no provision is made to increase the temperature by artificial means. He really is more discomfited by cold than by heat. Slowly he acclimates himself to his surroundings, still clamoring for a fire at night, an increase of clothing as the sun goes down, not fully realizing the hygienic benefits of temperatures that energize and invigorate and save him from the enervating influences of continuous high temperatures.

Only during the last decade have the avenues of travel been so perfected as to place the benefits of the California climate at easy command. The transfer is now easily made in four days, and every possible comfort is assured for invalid tourists. Every variety of accommodations, and at moderate cost, can readily be secured. Thousands each year avail themselves of a winter sojourn on the Pacific Coast, and these are but the forerunners of the multitudes that shall follow in the years to come. From the varied and abundant resources at the command of the people, every reasonable want can be satisfied, and chief among our provisions are sunny skies that vie with those of Italy, and snowy peaks like those of Switzerland.

So far as climatic conditions are concerned, every necessity can be met within the confines of our own country, and with

that liberty and security which are assured wherever float the Stars and Stripes of the American Flag.

DIAGNOSIS OF TUMORS OF THE SPINAL CORD AND ITS MEMBRANES.*

BY FRANK PARSONS NORBURY, M. D., JACKSONVILLE.

It has been comparatively recent that any absolute diagnosis of a localized affection of the spinal cord could be made. With the aid of the advances made in the study of the physiological anatomy of the cord and its spinal nerve distribution it has been made possible, so far as localization is concerned, to be exact in diagnosis. In fact it may be said that localization of organic diseases of the spinal cord is an exact science. It is true that there are observed many variations in kind and intensity of disturbed function of the cord, and that pathological processes are very varied, involving either or both the cord and its membranes. But, as the symptoms of organic disease, and especially tumors, affecting either the cord or its membranes are similar, it is necessary to study symptoms in common. Practical diagnosis recognizes the logical sequence of symptoms and does not accept as disease, what in many instances are purely symptoms: the fundamental disease causing them, being obscure and sometimes missed entirely, especially in the beginning of the disease. This fact should keep us on our guard so that we may anticipate symptoms, that will, eventually be more pronounced. Differential diagnosis requires an intelligent insight into the pathogenesis of tumors of the cord, although results thus far, show that in the beginning of a case it is almost impossible to determine the cause and it is with difficulty that its pathological nature is surmised. When we consider, too, that tumors are essentially chronic in their course, that they are usually slow in their development and that symptoms are confusing, we can

readily understand how true is the statement made by Bruns and Winschied that "The diagnosis of an obscure cord tumor will always remain one of the most difficult problems."

It is necessary, therefore, that in order to arrive at a diagnosis, a careful analysis of the symptoms be made. There is no uniformity in the presentation of the symptoms of the tumor of the cord. Defective function is seemingly not commensurate with existing lesions in some cases, while in others the reverse is true. What is said here on symptomatology has reference to tumors as a whole and not to any special class or classes of cases. In considering a case it is well that some definite system of observation be followed. A good plan is to first consider the general symptoms of tumors of the cord and its membranes, after which taking the individual symptoms, analytically, in order to determine, if possible, the location of the tumor, as to its relationship to the spinal column: to the membranes of the cord, and to the cord itself. That is, whether the tumor is extradural, intradural or intramedullary. Then the segmental localization of the tumor. The general symptoms of tumor involving the cord may be classed as follows:

1. Irritation of the nerve roots.
2. Meningeal symptoms.
3. Cord-symptoms.

IRRITATION OF THE NERVE ROOTS.

As far as we had occasion and opportunity to observe the early symptoms, first to appear, were those of irritation of nerve roots. At the beginning the patient experiences disturbances of sensibility—slight neuralgic pain which may be considered to be peripheral neuralgia. With the growth of the neoplasm the symptoms became more pronounced and are essentially neuralgic differing only in the fact that "they do not follow the course of the peripheral nerve, but are always in harmony with the distribution of the spinal roots."

In one case coming under my observation, cervico-occipital neuralgia was the original diagnosis. The sensory symptoms

*Read at the Fiftieth Annual Meeting of the Illinois State Medical Society, Springfield, May 16, 1900.

are usually unilateral early in the history of the case, but in the case just mentioned this phenomenon was bilateral from the very beginning. It is to be noted here, that segmental diagnosis becomes of assistance as soon as evidence of destruction appear. The sensory symptoms first appearing as nerve root irritation become more pronounced provided the lesion is in the posterior horns of the cord. And the motor symptoms due to interrupted conduction are gradually brought into notice and give a clue as to localization. Pain is almost constant and may become very severe. Eskridge says: "If some of the trunk nerves are the seat of irritation, the early symptom may be pain at the distal portion of one or two nerves, without pain or tenderness in any other portion of those nerves for a while." Numbness, hyperesthesia along the area of nerve distribution is noted and later anæsthesia is pronounced. There may be trophic changes, wasting of the muscles, as in one case where the neoplasm caused destruction of nerve roots and the muscles supplied from this source were entirely wasted. Again, contracture, and spasm are common symptoms and exaggerated reflexes of the extremities are noted.

MENINGEAL SYMPTOMS.

There are no pronounced differentiating symptoms when the meninges are specially involved except when located in the upper cervical region when rigidity of muscles of the neck, some other localizing symptoms such as atrophy of the muscles of the upper arm group. The presence of Kernig's sign, would serve to indicate the involvement of the membranes of the cord. Some authorities believe their observation justifies them to make the assertion that pain is not quite so severe in meningeal cases as in those cases having associated vertebral involvement.

CORD SYMPTOMS.

The cord symptoms are those due to a gradual compression of the cord, viz., both motor and sensory paralysis (paraplegic in type) spastic symptoms, vaso-motor and trophic disturbances and changes in the reflexes. To determine whether the growth

is intramedullary or intradural requires careful notation of the differentiating symptoms, and even then it often times is impossible to make this differentiation. Eskridge, of Denver, who by the way, is the leading American authority on tumors of the cord, says: "Cord symptoms manifest themselves early in intramedullary growths and are usually at first unilateral in character, but soon become bilateral." "If the tumor begins in one of the posterior horns of the cord, nerve-root symptoms of a sensory nature are the earliest," but cord symptoms are apt to appear about the same time. In intradural tumors nerve root symptoms precede cord symptoms for several weeks. In one of my cases seven months intervened between the onset of neuralgic pains and the organic cord symptoms. Again, the organic change when unilateral may show itself as Brown-Sequard paralysis, viz.: paralysis of motion on one side and of sensation on the other. In which case Eskridge says: "The greatest loss of motion and disturbance of the deep reflexes with weakened muscular sense, occur on the side corresponding to that on which the neoplasm is located; impaired sensation, and superficial reflexes are most marked in the opposite side." Other features of intramedullary tumors are that muscular wasting is most marked in this form, while rigidity of the muscles is not so pronounced.

Motor paralysis varies in degree—it may simply be a mild paresis but sooner or later the spastic paraplegic symptoms develop and when aggravated, render the patient helpless so far as locomotion is concerned. Church says: "Absolute motor loss is the great exception and depends, like complete reflex obliteration below the lesion, upon division of the cord." In one of my three cases, complete paraplegia resulted and in an interesting manner. The patient had sarcoma involving the seventh and eighth dorsal vertebræ and the ribs corresponding thereto with marked deformity due to erosion of the ribs at their articulation. The patient had been under my observation and the surgi-

cal care of the late W. H. H. King, of Jacksonville; we had referred him to Dr. Nicholas Senn, of Chicago, but Dr. Senn, at this time had left for Europe, and he came under the care of the late Dr. J. B. Hamilton. Dr. Hamilton had decided to operate, had arranged the time and the patient was under preparation at the Presbyterian Hospital, Chicago. His courage, however, failed him and he left that institution to go to Kirksville for osteopathic treatment. He was promised a cure by these divine healers; in a few days the tumor in his side disappeared, but lo, suddenly he became paralyzed and suffered great pain. He begged for relief, but, no, these montebanks refused to give medicines; he telegraphed for friends and was brought home on a cot—a total paraplegic, and soon after died. The post-mortem examination revealing extradural tumor of spinal cord impinging upon the cord, but the paraplegia in this case was the result of pressure myelitis from displaced vertebrae. However, the prodromes of the case had pointed to a possible tumor of the cord but they were largely the symptoms of nerve-root irritation. The reflexes, when cord symptoms develop, act just as in myelitis or the paraplegic state. Those involved in the growth are lost; those below the lesion are exaggerated except where a complete transverse lesion occurs when they are lost entirely. Muscular wasting, the reaction of degeneration are noted and when present indicate an intra-medullary tumor. Although I believe in one case of intradural tumor which Dr. Patrick saw with me, muscular wasting existed and was conspicuous. The involvement of the sphincters which I have noted in two cases, appeared, in one early because the lesion occurred below the lumbar enlargement, in the other it was a late symptom.

VASO-MOTOR AND TROPHIC DISTURBANCES.

Sweating is not unusual, in fact, it may be very profuse and may be limited to one side of the body. It was noted in one of my cases and involved the head and neck and upper extremity. Occasionally deep capillary flushings occur, they also may be

unilateral. Herpetic skin symptoms, bed sores, change in the nails, etc., are trophic symptoms not unusual in such cases.

The localization of the tumor is determined by the ordinary rules of spinal localization. Tumors located in the cervical region or below or in the lumbar enlargement are apt to be more speedily developed and more fatal.

DIFFERENTIAL DIAGNOSIS.

Caries.—In ordinary cases and in the usual location of spinal caries its diagnosis is not fraught with unusual differentiation. On the contrary, authorities teach that the diagnosis of spinal caries is not difficult, especially when the course is typical, viz., when the root and cord symptoms and the deformity occur in regular sequence. It is possible to have tumor of the spine having symptoms much in common with spinal caries, in which case a differentiation is to be made and also the differentiation between spinal tumor and tumor of the cord or its membranes.

The great point in differentiation is, the presence of tuberculous foci elsewhere, which is decidedly in favor of caries. Bruns and Winscheid say "that a history of removal of a malignant growth from the patient at some time remote, would suggest the possibility of carcinoma," and add there is a difference in the deformity resulting from carcinoma as compared to that of tuberculous caries, viz., that in carcinoma the deformity is that resulting from the sinking of the spinal column and the height of the patient is reduced; a sharp hump is not present. Again, in carcinoma the root symptoms seem to be more violent and exist for a longer period than in caries. A long continued bilateral sciatica would suggest carcinoma. This I have confirmed in one of my cases in which the cord symptoms appeared at the same time in both sides—but preceded by bilateral sciatica, lasting several months. The patient had made the rounds of sanatoria, water cures, massage, osteopathy, etc., and had taken rheumatic cures ad libitum. I saw the case after the cord symptoms had developed and made the diagnosis of spinal

tumor, probably carcinoma. Compression paralysis followed, then myelitis and death. The patient was an adult, 54 years of age. Post-mortem examination confirmed diagnosis.

Caries should be suspected in young persons and especially so when accompanied with the irregular temperature of tuberculosis, spinal tenderness and by the appearance of tuberculous involvement elsewhere. It is difficult to differentiate caries in the cervical region of the spine and the root and cord symptoms may be like those of pachymeningitis.

But in what we are especially interested is the differentiation where the cord is involved. In caries the pain is limited in area; it is not intense nor agonizing as in tumor of the cord. There is usually tenderness on pressure over the suspected area; muscular rigidity is less in caries and we usually have a deformity.

Cervical Meningitis.—It is usually secondary to infection as in tuberculosis and syphilis. In cerebro-spinal meningitis we have pronounced cervical symptoms. Caries may mask cervical meningitis. A history of traumatism would put us on our guard, for that rare form described by Charcot pachymeningitis cervicalis hypertrophica. The pain and sensory symptoms are not as conspicuous as the motor symptoms, due to the fact that the anterior and lateral portions of cord are most involved in meningitis.

Cervico-Occipital Neuralgia.—The points of differentiation are briefly as follows: It is more common in women, and apt to occur during adolescence when there is pelvic disease. There is a sharp boring occipital pain, it is usually unilateral paroxysmal and there are tender points over the exit of the nerves. The pain of spinal root irritation is more continuous—there are no tender points to speak of and the pain is more exhausting and agonizing. The pain is apt to involve the fifth nerve. Cervico-occipital neuralgia may occur with spinal caries and when accompanied with irregular temperature it is suspicious of beginning cervical spinal caries. The pa-

tient involuntarily limits his movements in caries to avoid jars and often times has torticollis associated.

Myelitis.—Under ordinary conditions the diagnosis of acute myelitis is not difficult. The existence of motor paralysis, disturbed sensation, involvement of the sphincters, (rectal and vesical paralysis) and the girdle sensation (cincture symptom) will lead to the diagnosis of acute myelitis and differentiate it from the systematic spinal disorders. Sub-acute and chronic myelitis are distinguished by more gradual developments of the prominent symptoms. In chronic myelitis we would consider the gradual growing weakness of the legs, the complete but transient loss of power occasionally; the slightly exaggerated reflexes gradually becoming more pronounced and finally ankle clonus. Paræsthesia of the extremities; the girdle sensation; muscular atrophies and trophic disturbances. The secondary disorders such as cystitis and nephritis finally develop and may cause death.

Syringomyelia.—This rare disease is to be considered in differential diagnosis. Its symptoms have been carefully and fully classified during the past fifteen years. Hinsdale says we now have "definite train of symptoms" and he arranges them as follows:

1. Intrinsic Symptoms—

1. Symptoms of anterior poliomyelitis and motor symptoms (atrophy).
2. Symptoms of median poliomyelitis, viz.:
 1. Trophic disorders.
 2. Deviations of spinal column.
 3. Vasomotor disturbances.
 4. Disorder of the sphincters.
 5. Ocular symptoms.
 6. Bulbar symptoms.
3. Symptoms of posterior poliomyelitis.

2. Extrinsic Symptoms—

1. Sclerosis of the lateral columns. (Spastic phenomena.)
2. Sclerosis of posterior columns. (Tabetic phenomena.)

By carefully considering the order of

Charcot thus arranged by Hinsdale, a differentiation can be made. We must remember that syringomyelia extends over a large vertical extract of the cord and that it is chronic and may last for years.

NATURE OF THE GROWTH.

The history of tuberculosis in a family during the life time of the patient or evidence of the existence of enlarged glands or other scrofulous tendencies would lead us to suspicion tuberculous tumor and especially so when clinical phenomena in keeping with this suspicion are present.

The history of syphilis, its clinical evidences and the rapid development of symptoms would lead us to believe that a syphilitic tumor existed.

The history of carcinoma at some time remote, especially of the breast or coincidental would indicate possible carcinomatous tumor. Bruns (reported in *Progressive Medicine*) details an interesting case of metastatic growth found on the inner layer of the dura, not involving the extradural space, pia or cord, which proved to be carcinoma. It followed carcinoma of the breast. Very extensive involvement of the vertebræ by carcinoma may produce comparatively few symptoms. Sudden paraplegia may result without previous distinct symptoms of carcinoma and may be due to giving way of the vertebræ, and thus cause compression paralysis.

Bruns says carcinoma of the vertebræ is always secondary.

DISCUSSION.

DR. HUGH T. PATRICK, Chicago: I want to call attention to one slight omission in the otherwise excellent paper of Dr. Norbury. It occurred to me that he omitted the differential diagnosis of spinal cord tumor due to syphilis or gumma. The most frequent form of spinal cord syphilis is myelitis. In the morally pure atmosphere of the classic precincts of Jacksonville they do not have probably spinal cord syphilis, but in the contaminated condition of our population of Chicago, we are very much alive to the existence of such a thing as it.

DR. ARCHIBALD CHURCH, Chicago: I wish to congratulate Dr. Norbury on his excellent paper. I consider it an important one because spinal cord tumors are comparatively rare. When they do occur, they are in many instances not accurately diagnosed, and I wish to congratulate him upon the accuracy of the diagnosis in the cases to which he referred as having occurred

in his own practice. I have seen four cases of tumor of the spinal cord, and the most distinctive symptoms were those relating to sensation. It is exceedingly difficult to make a diagnosis of tumor of the spinal cord. I undertake to say that the diagnosis, as it is usually made, is a tentative one, unless confirmed subsequently by operation or by post-mortem examination. The operation for this condition is largely exploratory, the hope being that the tumor has not too seriously invaded the cord and produced a destructive myelitis.

The first case I came in contact with I thought to be one of tumor of the spinal cord, but on inadequate grounds. The position of the tumor was located with definiteness, and after the skilful surgical intervention of Dr. Christian Fenger the tumor was found in the substance of the cord at about the fourth dorsal vertebra. Dr. Fenger split the cord longitudinally and shelled out a tumor fusiform in shape, about an inch and a half in length. The patient rallied from the operation without any considerable increase in the paralytic features which had characterized the case before operation. The patient died from the occurrence of septic invasion in the operation wound. This is one of the few cases, if not the only case in surgical literature in which the cord was invaded for the purpose of removing a tumor. About that time, by a combination of opportunities of observation, I had made out an area of disturbed sensation over the lumbar and sacral cord. At about the same time Dana made out a similar area. These observations were subsequently confirmed. A case I saw recently corresponds to the type referred to. The patient suddenly lost power in the right leg and sensation in the left leg, preceded by girdle pains about the body. There was a small gumma on the side of the cord producing symptoms which subsided practically under treatment.

DR. NORBURY (closing the discussion): I have very little to add. These three cases were under observation for about twelve years; the first one was seen about ten years ago, the second one nearly two years ago, and the last one during the past winter. Tumor of the spinal cord is a comparatively rare affection. As far as I am aware, only about two hundred and twenty cases have been reported in the literature up to the present time.

THE ILLINOIS STATE MEDICAL SOCIETY.

PROCEEDINGS OF THE FIFTIETH ANNUAL MEETING (SEMI-CENTENNIAL)

HELD AT

SPRINGFIELD, MAY 15, 16 AND 17, 1900.

The next thing in order was the report of the Committee on Society History.

DR. N. S. DAVIS, Sr.: I am not anxious to consume the time of the Society, but I

wish to say that about three months ago I was requested to write a brief history of the Society to be presented on this occasion. I agreed to do it, and I did not hear of anything to the contrary until I saw by the program that Dr. Boal was to present such a report. I have completed my history and have it with me.

Dr. E. Fletcher Ingals: I move that Dr. Davis be permitted to read the history of the Society that he has prepared. Seconded and carried.

Dr. Davis then read the following report on the Society history:

HISTORY OF THE ILLINOIS STATE MEDICAL SOCIETY.

DURING THE FIRST FIFTY YEARS OF ITS EXISTENCE,

BY N. S. DAVIS, CHICAGO, ILL.

The completion of the organization of the American Medical Association in 1847, to be composed chiefly of delegates from permanently organized state and local medical societies in all the states of the Union, awakened renewed interest and activity in such societies as then existed, and furnished an additional motive for organizing new societies in states where none had existed before. At that date, 1847, no State Medical Society existed in this state, and the only delegates who participated in the conventions forming the National Association, from Illinois, were Dr. Edward Mead, representing the medical department of Illinois College at Jacksonville, and Dr. Jos. C. Frye, of Peoria, representing Rush Medical College. Previous to 1849 several district Medical Societies, each including several counties, had been organized within the state. The Esculapian Society, occupying the southern part of the state, was perhaps the first organized. It was soon followed by the Rock River and Fox River Medical Societies in the north part, and the Peoria District Medical Society, and the Ottawa Medico-Chirurgical Society more central. The Chicago Medical Society was organized early in the spring of 1850. It appears that the first movement in favor of organizing a State Medical Society in

this state was made in the Ottawa Medico-Chirurgical Association in 1849. Dr. Edward A. Guilbert, the secretary of that Society, corresponded with the officers of such other Medical Societies as had been organized in the state, and with the editors of the Northwestern Medical and Surgical Journal, published in Chicago, and edited by Drs. John Evans and Edwin G. Meek. The proposition to form a State Medical Association met with general approval, and in accordance with the suggestion of the Journal, the time was designated as the first week of June, 1850, instead of the first of January, as first suggested by the Ottawa Association. The choice of season of the year was determined by the fact that in 1850 the only facilities of travel through the state were by stage coach, river and canal, the two latter not being available in the winter. After the foregoing correspondence, the following formal call for a convention to organize a permanent State Medical Association, was issued by the Ottawa Medico-Chirurgical Association and published in the Northwestern Medical and Surgical Journal, January, 1850, viz:

"Resolved, That the Ottawa Medico-Chirurgical Association respectfully and earnestly recommends that a State Medical convention convene at the capital of the state (Springfield) on the first Tuesday in June, 1850, for the purpose of forming a State Medical Association.

"Resolved, That this Association, do hereby call such a convention, and that these resolutions be signed by the President and Secretary of this body and transmitted to the Northwestern Medical and Surgical Journal for publication."

On motion of Dr. D. D. Thompson, it was further

"Resolved, That a Committee of Conference, consisting of three members of this Association, be appointed to correspond with the physicians of Springfield, in reference to the arrangements incident to the convocation of said convention. These resolutions were adopted, and Drs. D. D. Thompson, Edward A. Guilbert and Jona-

Society; in favor of the publication of the proceedings of the convention and State Society, including the constitution, by-laws and code of ethics; and also tendering a vote of thanks to the Hon. D. L. Gregg, Secretary of State, for the use of the State Library Room and his kind attentions during their meetings. The following physicians were elected to permanent membership, viz: Drs. C. F. Hughes, R. P. Lamb and J. Richardson, of Springfield, Daniel Brainard, John Evans, Eriel McArthur and N. S. Davis, of Chicago, Alfred E. Ames, of Roscoe, Jacob Lescher, of Mt. Carmel; Edwin Wright, of Carlinville, A. L. McArthur, of Joliet, W. B. Norton, of Russellville, and E. C. Banks, of Charleston. Dr. Edward R. Roe, of Jacksonville, was appointed to deliver a public address at the next annual meeting, and Dr. N. S. Davis, of Chicago, elected as alternate. After authorizing the Treasurer to collect \$2.00 from each member, to pay the expense of publishing their proceedings, the Society adjourned to meet in Peoria on the first Tuesday of June, 1851.

The Illinois State Medical Society was thus organized by the harmonious action of sixteen members of the profession in session, in Springfield, Illinois, on the 4th and 5th days of June, 1850.

The first anniversary meeting of the Society was held in Peoria, June 3d and 4th, 1851, and was attended by twenty-one delegates from local medical societies and medical institutions and by twenty-nine permanent members. The members assembled in the court house, and were called to order at 11 A. M., by the President, Dr. William B. Herrick, of Chicago, and after the reading of the constitution and by-laws by the Secretary, the Committee of Arrangements reported the names of delegates and members present, and on motion of Dr. J. C. Frye, of Peoria, a committee of one from each county represented was appointed to nominate officers for the ensuing year. The Society then adjourned to 2 o'clock P. M.

During the afternoon session the nomi-

nating committee reported, recommending the election of the following officers for the ensuing year, viz: President, Dr. S. Thompson, of Albion; Vice Presidents, Dr. E. McArthur, of Chicago, and Dr. Thomas Hall, of Toulon; Secretaries, N. H. Shoemaker, of Columbia, and Dr. A. L. McArthur, of Joliet, and Treasurer, Dr. Rudolphus Rouse, of Peoria. The report was unanimously adopted, and the new President was conducted to the chair.

At the evening session the court house was filled by an audience of citizens as well as members to hear the annual address of the retiring President, Dr. W. B. Herrick, "On the Remedical Properties of Alimentary Substances, and the Changes Produced by Oxygen in Health and Disease." The address was listened to with marked attention and would even now well re-pay for a careful perusal.

During the second day's sessions Dr. S. Thompson, Chairman of the Committee on Practical Medicine, presented a full and valuable report on the important endemic and epidemic diseases prevalent in the state, including milk sickness and epidemic cholera.

In the absence of any report from the chairman of the standing committee on Surgery, Dr. E. S. Cooper, of Peoria, presented a brief paper on the "Effects of Chloroform as an Anesthetic Agent in Operative Surgery."

The chairman of the standing committee on Obstetrics being absent, Dr. Rudolphus Rouse, presented a brief paper on "The use of Chloroform in Parturition." These several reports were referred to the Committee on Publication, and may be found in the transactions of the Society.

The chairman selected for the several standing committees were the following: E. R. Roe, of Jacksonville, on Committee of Arrangements; N. S. Davis, of Chicago, on Practical Medicine; J. Murphy, of Peoria, on Surgery; R. Boal, of Lacon, on Obstetrics; and J. V. Z. Blaney, of Chicago, on Drugs and Medicines.

Drs. R. Rouse, C. N. Andrews, J. D.

Arnold, H. Shoemaker and S. Thompson were elected delegates to the American Medical Association. Special committees were appointed to report at the next annual meeting on the registration of births, deaths and marriages; on the regulation by statutory enactment of the qualifications of those who practice medicine and surgery; and on the legalizing of dissections of the human body. Dr. C. N. Andrews, of Rockford, was appointed to deliver a public address at the next annual meeting; and after the usual complimentary resolutions to the profession and citizens of Peoria the Society adjourned to meet in Jacksonville on the first Tuesday in June, 1852.

The second annual meeting of this Society was held in the old school Presbyterian church in Jacksonville, June 1st, 2nd and 3rd, 1852, and was attended by an increased number of members.

The Society was called to order at 11 A. M., by the President, Dr. Samuel Thompson, of Albion, and after the report of the Committee of Arrangements and the election of a list of new members a committee of one from each Medical Society represented was appointed to nominate officers for the ensuing year. In accordance with the report of the Nominating Committee in the afternoon, the following officers were elected for the ensuing year, viz: President, Dr. Rudolphus Rouse, of Peoria; Vice Presidents, Dr. Thos. Hall, of Toulon, and Dr. Nathaniel English, of Jacksonville; Secretaries, Dr. E. S. Cooper, of Peoria, and Dr. H. A. Johnson, of Chicago; and Treasurer, Dr. Edward Dickenson, of Peoria. Dr. Rouse, on being conducted to the chair, delivered a brief but very appropriate address touching the objects of the Society. Dr. N. S. Davis, as chairman of a Committee on Unfinished Business, reported the following important additions to the constitution of the Society, they having been proposed at the preceeding annual meeting, and they were adopted as follows:

"The delegates shall receive their appointment from permanently organized Medical Societies, Medical Colleges, Hospitals, Lunatic Asylums and other perma-

nently organized Medical Institutions of good standing in the State of Illinois. Each delegate shall hold his appointment for one year, and shall participate in all the business and affairs of the Society.

"The permanent members shall consist of regular graduates from reputable schools of medicine who have served in the capacity of delegates, or such other regular graduates as may receive the appointment by unanimous vote.

"Permanent Members shall at all times be entitled to attend the meetings and participate in the transactions of the Society so long as they continue to conform to its regulations, and when not in attendance they shall be authorized to grant letters of introduction to reputable practitioners of medicine residing in their vicinity, who may wish to participate in the meetings as provided for members by invitation."

The meeting in Jacksonville continued three days, during which the retiring President, Dr. Thomas, delivered an address "On the Nature of Disease," Dr. C. N. Andrews, of Rockford, a public address "On Divinity, Law and Physic," Dr. N. S. Davis, Chairman of the Committee on Practical Medicine, a full report on the improvements in the treatment of disease and the progress of epidemics during the year. Dr. Thomas Hall, of Toulon, a member of the Committee of Practice of Medicine, read a paper on the diseases of Stark county, and Dr. E. S. Cooper, of Peoria, member of the Committee on Surgery made brief reports on collodion as a remedy in entropium; on a new mode of cauterizing the urethra with an instrument for the purpose, and on a new method of treating false ankylosis of the knee joint. All the foregoing addresses and reports are to be found in the printed transactions for 1852, except the address of Dr. Andrews.

Additional interest was imparted to this annual meeting by the visit of the members to the several state institutions located at Jacksonville, viz: The Illinois Institute for the Blind; the Asylum for the Deaf and Dumb; and the Illinois State Hospital for the Insane. The Society offered a prize

of \$20.00, donated by Dr. N. S. Davis, for the "best essay on the Physiologic and Pathologic Differences between Stimulants of the Alcohol Class and Tonics represented by the Bitter Barks and Iron," to be founded on experimental investigations.

The usual standing committees were appointed; seven members were appointed as delegates to the American Medical Association; Dr. N. S. Davis was appointed to deliver the public address at the next annual meeting; and the Society adjourned to meet on the first Tuesday in June, 1853.

On June 7, 1853, the delegates and permanent members of the State Society assembled in the Common Council Room of the city of Chicago, at 10 A. M., and were called to order by Dr. Thomas Hall, the first Vice President, the President Dr. Rouse being absent. Dr. Eriel McArthur, chairman of the Committee of Arrangements, made a brief address of welcome and presented the roll of delegates and members present. On the recommendation of the usual Nominating Committee the following were elected officers for the ensuing year, viz: President, Dr. Daniel Brainard, of Chicago; Vice Presidents, Drs. C. N. Andrews, of Rockford, and H. Noble, of Bloomington; Secretaries, Drs. H. A. Johnson, of Chicago, and W. W. Welch, of La Salle, and Treasurer, Dr. A. B. Chambers, of Peoria.

The President elect, on being conducted to the chair, accepted the position with thanks for the honor received. The Society continued its sessions, two each day, for three days, during which time a full report was made on drugs and medicines by Dr. J. V. Z. Blaney, chairman of the Standing Committee, a paper on the "Therapeutic Uses of Turpentine," was read by Dr. S. Thompson, of Albion; cases of interest were reported by Dr. Thomas Hall, of Toulon; "Case of Development of the Placenta in a Fallopian Tube," by Dr. C. N. Andrews was reported, and Dr. N. S. Davis, delivered a public address on the "Intimate Relation of Medical Science to the whole Field of Natural Sciences;"

all of which may be found in the printed transactions for 1853. The members of the Society enjoyed formal visits to the Illinois General Hospital, the U. S. Marine Hospital, and a reception at the Tremont House on Thursday evening, tendered by the profession of Chicago. Thirty-three new permanent members were elected by unanimous vote; twelve delegates were appointed to represent the Society in the next meeting of the American Medical Association, and La Salle was chosen as the place for the next annual meeting of the Society.

The fourth annual meeting of the State Society was held in La Salle, June 6th and 7th, 1854; the President, Dr. Daniel Brainard, of Chicago, in the chair. The features of chief interest at this meeting were the annual address of the retiring President Dr. Brainard, the Prize Essay, by Dr. Henry Parker, of Chicago; and a paper on "Walking, the Primary Element in the Cure of Deformities of the Lower Extremities, etc.," by Dr. E. S. Cooper, of Peoria. The address of Dr. Brainard was on the "Treatment of Poisoned Wounds by application of Cupping Glasses and the Infiltration of Solutions of Iodine," and was founded on original experiments. The essay of Dr. Parker was on the "Physiologic Differences between Alcoholic Stimulants and Tonics," and contained the results of an interesting series of experiments to determine the effects of alcoholic liquors upon the human system.

These were the first presentations of original experimental investigations made to this Society, and may be found in the published transactions for 1854. The following officers were elected for the ensuing year, viz: President, Dr. C. N. Andrews, of Rockford; Vice Presidents, Drs. S. Thompson, of Albion, and Thomas Hall, of Toulon; Secretaries, Drs. H. A. Johnson, of Chicago, and A. H. Luce, of Bloomington; Treasurer, Dr. N. S. Davis, of Chicago. About forty members were in attendance, and the next annual meeting was to be held in Bloomington.

Since that period the annual meetings

of the Society have been held with entire regularity, except those for 1861 and 1862, when so large a number of the members were actually engaged with the army that the meeting for those two years were postponed until 1863. From the beginning it has been the policy to hold the anniversary meetings in different parts of the state, for the purpose of enlisting greater interest in the profession generally, and affording equal facilities for becoming members from all parts of the state. In pursuing this policy, eleven annual meetings have been held in Chicago, seven in Springfield, four in Jacksonville, four in Bloomington, three in Peoria, three in Decatur, two in Rock Island, two in Vandalia, two in Quincy and one each in La Salle, Paris, Dixon, Urbana, Lincoln, Belleville, Ottawa, East St. Louis, Galesburg and Cairo. The number enrolled as members in 1850 was twenty-nine; it has increased to seven hundred at the present time. The progress of the state and local organizations was slow during the first twenty years, on account of bad roads and the absence of railroad connections. It then cost about as much time, and much more fatigue, to travel from Chicago to Springfield or Jacksonville, than it now does to go from Chicago to Boston or to San Francisco. During the last thirty years, however, the work of organizing the profession into local societies and their affiliation with the State Society has made such progress that instead of only the six local Societies known to exist in 1850 there are now in the state not less than thirty-seven county, fifteen district, and twenty city Medical Societies.

During the whole half century of its existence, the work of the State Society has been characterized by a commendable degree of harmony and stability of purpose. While the Presidential office has been subject to annual change, that of Secretary was filled fifteen years by Dr. N. S. Davis, seven years by Dr. T. D. Fitch, six by Dr. S. J. Jones and seven by Dr. D. W. Graham, while that of Treasurer was held by Dr. J. H. Hollister, twenty years, Dr. Walter Hay

five and by Dr. Geo. N. Kreider, ten years. In examining the more recent rolls of membership I find the names of only three of those who were recorded in 1850 still remaining, viz: Robert Boal and L. G. Thompson, of Lacon, and the writer of this historical sketch; the last named not being present but elected at that meeting.

Though individual memberships thus rapidly change, the Society and its purposes are the same. Those purposes or objects as declared in the preamble to the constitution adopted in 1850, were "for cultivating and advancing medical knowledge; for elevating the standard of medical education; for promoting the usefulness, honor and interests of the medical profession; for enlightening and directing public opinion in regard to the duties, responsibilities and requirements of medical men; for exciting and encouraging emulation and concert of action in the profession, and for facilitating and fostering friendly intercourse between those engaged in it." Although the constitution has been revised three times during the half century, to keep it well adapted for facilitating the work of the Society, these noble and important purposes are still retained as its most fitting introduction, and not an anniversary meeting has passed that they have not been sustained by discussions, resolutions, reports of committees, reading of papers, or by public addresses, and as the result we have seen the field of medical knowledge increase, the standard of medical education advance, public opinion enlightened, and organization, emulation and cordial friendship in the profession develop more rapidly than during any previous half century in human history.

Chicago, Ill., May 15, 1900.

On motion of Dr. Goodell, a vote of thanks was tendered to Dr. Davis for his very instructive and interesting report.

REPORT OF THE AUDITING COMMITTEE.

Dr. J. T. McAnaly, of Carbondale: Your committee desires to report that it has carefully examined and audited the report of the Treasurer, as read before the

Society this morning, and finds the same correct, and would recommend its adoption.

On motion of Dr. Ingals, the report was adopted.

The President: We will now listen to the report of the special discussion that was held on Monday. I understand that the committee has certain recommendations to make which are of considerable importance, and I will ask the chairman of that meeting to read the entire report, and then we will take it up by sections for adoption.

Dr. C. W. Hall read the report as follows:

REPORT OF THE PRELIMINARY MEETING.

At a preliminary meeting, held May 14th, which was called to discuss and devise plans for better organization, Dr. E. Fletcher Ingals was elected chairman.

The following propositions were discussed in their order and the accompanying recommendations are respectfully submitted to this Society for its consideration:

1. Methods for enforcing and improving the medical practice act.

Recommendation. That the matter of amendments be left to the discretion of the Committee on Medical Legislation.

2. Methods for adding to the membership of the State Medical Society, increasing the efficiency of local medical societies, and adding to the number of local medical societies.

Recommendation. That the Committee on Publication co-operate as much as possible with the Committee on Medical Societies to the extent of furnishing them copies of the State Medical Journal.

3. Methods for increasing the interest in the State Medical Society and the advisability of appointing a committee on the "Good of the Profession," to meet annually on the afternoon preceeding the first day's session of the State Medical Society.

Recommendation. That a Committee of three be appointed by the President of the State Society to meet the afternoon of the day preceding each annual meeting; all members of the State Medical Society shall be invited to meet this committee, and at

the preliminary meeting questions of material interest to the profession shall be discussed and recommendations made by this committee.

4. Methods for securing the appointments of representative medical men on the State Board of Health.

Recommendation. That the Judicial Council of the State Medical Society be authorized to present to the Governor a list of physicians eligible to appointment on the State Board of Health, and to all other offices in the State to which physicians are usually appointed by the Governor. The Judicial Council to be guided in their recommendation by suggestions of local medical societies in good standing.

Upon motion, the Chair appointed the following committee which respectfully submits the above summary of proceedings for your consideration.

C. W. Hall, Chairman.

W. F. Grinstead.

Carl E. Black.

On motion of Dr. Hollister, the report was received for consideration.

Sections 1 and 2 were adopted as read.

Section 3. Dr. J. Homer Coulter: I move the adoption of this section. Seconded.

Dr. W. O. Ensign, Rutland: I have no objections to this committee, but I do have objection to the method of its work. This committee, as I understand it, is to meet on the afternoon of the day preceding the meeting of this Society. I believe every committee should be placed upon the same platform, and that we as members should receive reports and refer them to committees in the usual manner, and not appear the day before and present suggestions to be considered at a meeting before the State Society meets. This committee should be placed where other committees are, and these matters should be brought up before the State Society, and then referred to a committee. I object to the method of the committees's work, and not the committee.

Dr. E. Fletcher Ingals: The object of having the committee meet the day before before the meeting of the State So-

ciety was to enable the physicians and members of the State Society to get together and talk over matters of interest at their leisure, and present them to the Society. After they have been presented to the Society, then they can be referred to the proper committees. If these new matters are presented at the meeting of the State Society in general session, it will take some time to discuss them. According to the proposition that has been submitted, the members could come here, all those who desire to do so, and talk over these matters. Everyone would be invited, and it seems to me the objection that has been urged is not an important one. I think the gentleman himself would find no difficulty in getting here, and I know we could get a great deal more benefit and discussion out of these preliminary meetings than we could during the general meeting of the State Society.

The motion to adopt Section 3 was then put and carried.

Section 4. Dr. A. C. Corr: I move that this section be adopted as recommended. Seconded.

Dr. O. B. Will: I do not like to see this matter hurried through so rapidly without expressing an opinion. So far as I am individually concerned, I think we had better let this matter alone. I believe that is laying the foundation for an immense amount of trouble in connection with the political entanglements of this Society. Personally, I should like to have the members consider this recommendation thoroughly before they accept it.

Dr. J. Homer Coulter: The proposition as presented to the Society is in the best form of anything I have ever heard suggested, for the reason that it approaches nearer to political methods without in the least interfering with the dignity of the profession. I favor the adoption of this recommendation.

The motion to adopt Section 4 was then put and carried.

Dr. A. C. Corr: There is one little matter that has been overlooked in this report. The recommendation was made at the preliminary meeting that the secretaries of

local societies be recommended as associate editors of the Journal. This should be incorporated in the report, and I hope this will be done before a vote is taken to adopt the report as a whole.

Dr. J. W. Pettit: Not associate editors, "but official reporters."

Dr. C. W. Hall: As a member of the committee, I want to apologize for overlooking the matter referred to by Dr. Corr. The recommendation was acted upon, but it was not in our minutes.

Dr. W. O. Ensign: Before this correction is made, I move that the report be referred back to the committee for correction before it is adopted as a whole. Seconded.

Dr. Coulter: I wish to call for a ruling of the Chair as to whether we can adopt this report section by section without taking final action on it as a whole at this session. In other words, it is not unparliamentary to adopt sections of the report now, and then adopt the report as a whole at a subsequent session?

The President: The Chair rules that we have adopted the various sections of this report. He also rules that its reference to the committee before it is adopted as a whole is in order.

Cries of Question! Question!

The motion to refer the report back to the committee for correction was put and carried.

Dr. E. Fletcher Ingals: I move that there be appropriated from the Treasury a sufficient sum to cover the disbursement which has been made by the Committee on Medical Legislation. I believe the amount paid out was \$276.00.

Seconded by Dr. Corr and carried.

SECTION TWO—FIRST SESSION.

Chairman, Dr. Denslow Lewis, Chicago; Secretary, Dr. Carl E. Black, Jacksonville.

Dr. J. Clarence Webster, of Chicago, delivered the address of this section. He selected for his subject, "The Pathology of Delivery."

The following papers were read as an Obstetric Symposium:

1. "Application of the Forceps," by Dr. J. E. Allaben, of Rockford.

2. "The Technique of Version," by Dr. J. F. Percy, of Galesburg.

3. "Management of Impacted Cases," by Dr. Henry F. Lewis, of Chicago.

4. "The Mutilating Operations," by Dr. Charles S. Bacon, of Chicago.

5. "Symphysiotomy," by Dr. George N. Kreider, of Springfield.

6. "Cæsarean Section and Porro Operations," by Dr. Chas. B. Reed, of Chicago.

These papers were discussed jointly by Drs. Reed, Munson, Bacon, Allaben and Percy.

On motion, the Society adjourned until 1:30 P. M.

SECOND DAY—AFTERNOON SESSION.

The Society reassembled at 1:30 P. M., and was called to order by the President.

SECTION TWO—SECOND SESSION.

Dr. E. M. Sutton, of Peoria, read a paper on "The Perineal Operation in the Male, and Vaginal Incision in the Female, for the Results of Appendicitis."

Dr. Edward H. Ochsner, of Chicago, followed with a paper on "Treatment of Ankle Sprains," which was discussed by Drs. Kreider and Allaben.

Dr. J. W. Hairgrove, of Jacksonville, read a paper on "Gall Stones," which was discussed by Dr. Webster.

Dr. Emil Ries, of Chicago, read a paper on "Sterility in Men," which was discussed by Dr. Van Hook.

Dr. Albert Goldspohn, of Chicago, contributed a paper on "Intestinal Obstruction after Vaginal Hysterectomy and Pelvic Abscess."

Dr. H. W. Chapman, of Whitehall, read a paper on "Surgical Introspection."

Dr. A. I. Bouffleur, of Chicago, presented a paper on "Ptosis of the Liver," which was discussed by Drs. Fairbrother, Corr, and the discussion closed by the essayist.

Dr. William Allen Pusey, of Chicago, read a paper entitled "The Present Treatment of Syphilis," which was discussed by Drs. Baum, Macey, Herriott, Patrick, and the discussion closed by the essayist.

Dr. C. D. Center, of Quincy, contributed a paper entitled "Acute Hemorrhagic Encephalitis."

Dr. M. L. Harris, of Chicago, read a paper on "The Operative Technique of Very Large Inguinal Herniæ."

Dr. William E. Schroeder, of Chicago, presented a paper on "The Use of Pedicled Flaps in Injuries of the Hands," which was discussed by Drs. Ochsner, Van Hook, and the discussion closed by the essayist.

Dr. R. A. Kerr, of Peoria, read a paper on "Renal Calculi," which was discussed by Dr. Kreissl.

Dr. F. Kreissl, of Chicago, read a paper on "The Treatment of Prostatic Enlargement with Special Reference to Bottini's Operation," which was discussed by Drs. Percy, Sutton, and the discussion closed by the essayist.

On motion, the Society then adjourned until Thursday, 8:30 o'clock.

The following were elected delegates to the American Medical Association:

E. Fletcher Ingals, Chicago.

Hugh T. Patrick, Chicago.

George F. Butler, Chicago.

L. J. Harvey, Griggsville.

George N. Kreider, Springfield.

F. P. Norbury, Jacksonville.

W. J. Eddy, Shelbyville.

L. R. Ryan, Galesburg.

J. H. Miller, Pana.

N. Senn, Chicago.

Geo. H. Simmons, Chicago.

J. R. Pennington, Chicago.

Denslow Lewis, Chicago.

Horace N. Starkey, Chicago.

A. C. Cotton, Chicago.

Margaret T. Shutt, Springfield.

C. M. Bowcock, Springfield.

Harold N. Moyer, Chicago.

Charles H. Brobst, Peoria.

W. A. Evans, Chicago.

J. B. Murphy, Chicago.

The following were elected delegates to the International Medical Congress:

Harriet E. Garrison, Dixon.

J. W. Pettit, Ottawa.

W. S. Caldwell, Freeport.

E. W. Weis, Ottawa.

Continued next month.

The Illinois Medical Journal

PUBLISHED MONTHLY.

Official Organ of the Illinois State Medical Society.

Committee on Publication:

E. W. WEIS, M. D., Chairman, Ottawa.
G. N. KREIDER, M. D., Springfield.
E. J. BROWN, M. D., Decatur.

All communications should be addressed to E. W. WEIS, Secretary, Ottawa, Ill.

All remittances for subscriptions should be sent to Dr E. J. Brown, Treasurer, Decatur, Ill.

The Society does not assume responsibility for any statements or opinions published in this journal.

Entered at the Postoffice at Springfield, Ill., as second-class matter.

Springfield, Ill., August, 1900.

OSTEOPATHY IN KENTUCKY.

The Court of Appeals in Kentucky has just rendered a decision to the effect that the law of the State regulating the practice of medicine does not apply to graduates of colleges of osteopathy and that these practitioners do not violate the law when practicing their system of healing in the State. The Court also granted a perpetual injunction restraining the State Board of Health from interfering with osteopaths practising in the State.

Kentucky is the third State in which decisions have been rendered declaring osteopathy not to be the practice of medicine, since the enactment of the act to regulate the practice of medicine in the State of Illinois in force July 1st, 1899. Were it not for the wisdom of the members of the legislative committee of the State Society and the Secretary of the State Board of Health, in inserting in the bill of which the act referred to is an outcome, a clause providing for the examination and registration of this class of practitioners, Illinois would now be flooded with healers of all kinds calling themselves osteopaths and there would be no redress. It is true that the Appellate Court in construing the

Act of 1887, has decided that osteopathy is the practice of medicine, but there is no reason to believe that the Supreme Court would be in accord with this view. It is a well known fact furthermore that Supreme Courts as a rule are very prone to give heed and due weight to decisions rendered by other legal tribunals of equal rank. E.

FOXES TURN ON THE HOUNDS.

The quacks, psychopathic fakes and other "non-medical healers," believing in the old adage, that in "unity there is strength," are concentrating their energies in Ohio in their attempt to defeat the Love Medical Law, and thus prevent what they call the persecution and unjust prosecution of their members by the regular profession. The following notice was recently printed in "The Progressive Thinker," published in Chicago:

NON-MEDICAL HEALERS IN OHIO.

The Suggestive Theraputists, Magnetic Healers, and other non-medical healers of Ohio have organized under the name "The Psychopathic and Non-Medical Liberal Association," for the purpose of advancing the science of non-medical healing, and of protecting the members of the association from unjust prosecution under the law known as the Love Medical Law.

All non-medical healers, and others who are in sympathy with the movement are respectfully requested to write to the secretary for further information. Enclose stamp and receive in return a copy of the constitution and membership application blanks. Your co-operation is desired and solicited.

Lillian Eichhorn, Sec.

1403 N. High St., Columbus, Ohio.

The Ohio medical profession is not alone in its discovery of organized resistance to its efforts against quackery, as was abund-

antly proven by the recent meeting in Chicago of a liberal medical organization formed for the direct purpose of influencing legislation in the interest of irregulars. Such combinations should certainly arouse the regular profession to a realization of the seriousness of the condition now existing and should have some effect in removing the apathy and inactivity of the medical profession.

B.

VIVISECTION.

Even to the professional mind there is something repugnant in experiments made on the living animal. We know, however, that the lesser evil is necessary for the greater good and thereby overcome some of the disagreeable sensations of experimental work. If such feelings arise unbidden in the professional mind, what are likely to be the thoughts of the laity who are prone to attribute the sin of heartlessness to the profession. In view of these facts should we not respect the feelings of the community, and so far as possible minimize the evils of vivisection? Should we not ourselves demand that animal experiments be undertaken only in places especially adapted for them and so remote from streets and dwellings that the ordinary citizen should not necessarily have his feelings harrowed up by the noises which necessarily proceed from laboratories where such work is carried on?

Certain it is that such reports as have recently appeared in the Chicago daily press in which it was stated that a well known member of the profession had been making experiments in his own residence from which proceeded cries of animals which had many times disturbed his neighbors, causing them to appeal to the city authorities for protection, and that bodies of dead animals in all stages of mutilation had been ex-

posed in his alley-way awaiting the scavenger, to be seen by sensitive women and children, will do much to stimulate the passage of an anti-vivisection law. Certain it is that if professional good taste and opinion does not place certain necessary barriers around experimental work the people exaggerating the small evils to great ones will demand the passage of laws which will be real obstacles in the way of scientific research.

Little will avail the protests of the profession if the plea of the fanatical anti-vivisectionist is fortified by such accounts as have recently been published.

K.

RUDOLPHUS ROUSE.

Prominent in the early history of the Society was Rudolphus Rouse, of Peoria, whose portrait appears on the second page of this issue. Dr. Rouse was elected chairman of the meeting held in Springfield, June, 1850, and in 1852 presided over the meeting at Jacksonville. Dr. Rouse was born in Rensselaer county, New York, July 20, 1793. He is said to have served as a surgeon in a New York regiment during the war of 1812, although he had not reached his majority until about the close of that war. In 1833 he landed in Peoria and according to Dr. Boal, was warmly welcomed to the small village by the only physician there. He observed that the resident doctor was possessed of a large and plethoric pair of saddle bags, and was curious to know their contents. The pioneer, on request, at once opened them and revealed his armamentarium, which consisted of one old spring lancet, four pounds of epsom salts, one pound of calomel, one pound of saltpeter and a half pound of tartar emetic. As Dr. Rouse was uninstructed in the practice in a new country, his newly found friend proceeded to deliver a course of lectures as follows: If the patient be plethoric

bleed, give a large dose of calomel and follow with epsom salts. If the tongue be coated and there be nausea, give a good dose of tartar emetic, followed by calomel and salts. If the stomach and bowels have been evacuated thoroughly by these procedures give saltpeter and antimony in small and repeated doses, interjecting between them moderate doses of calomel. He closed the course by saying to his bewildered listener, in a most serious manner, "So you perceive, doctor, it is necessary to vary our practice in a new country." Dr. Rouse survived the ordeal and remained for forty years a leader in the community and the profession. He died April 30, 1893. Acknowledgments are due to his family and to Dr. O. B. Will, editor of the Peoria Medical Journal, for the use of the engraving. K.

Correspondence.

New York, N. Y., June 28, 1900.

The Illinois State Medical Society's European excursion to the International Medical Congress left Chicago the 26th of June for the East, via Niagara Falls, Albany and then by boat on the Hudson to New York City, where the transatlantic steamer City of Rome carries the party to Glasgow.

Dr. Pettit has been very successful in organizing this party and he is to be congratulated upon the perfection of all plans relative to this trip.

Some sixty members and their friends are with us and we note many faces that are always familiar at the Society meetings.

E. W. Weis.

To the Editor:

Dear Doctor—Will you kindly call the attention of the profession in general and the secretaries of the various Illinois medical societies in particular, to the action taken by the State Society at its last meet-

ing in respect to the various medical offices in the State to be filled by the Governor. The resolution as passed reads in substance as follows:

Resolved, That the Governor of Illinois be furnished a list of names by the Judicial Council from which to make appointments of medical men to the various positions in the boards and institutions of the State, and that said list be made up of members in good standing recommended by the city, county and district medical societies.

It was decided by the Judicial Council just before the State Society adjourned to invite every society in affiliation with the State Medical Society to recommend such of their members as may be considered desirable and qualified for such medical positions as may be within the power of the Governor to fill.

It is the purpose of the Judicial Council (if the plan meets with favor from the profession) to form of the names thus recommended, a list of eligibles from which the Governor will be asked to make his appointments. No better statement of the importance and practicability of this matter to the physicians of the State can be made than that recently given by Governor Tanner, when he stated that he had no means of knowing the wishes of the medical profession as represented by the Illinois State Medical Society when about to appoint one of their number to an official position. It is the purpose of this resolution to reduce to a minimum the possibility of criticism which has so often followed appointments of medical men by executives of the State. The secretaries of the various medical societies are urged to attend to this matter at once in order that the whole State will be represented on the list.

E. P. Cook, Chairman,
Mendota, Ill.

J. F. Percy, Secretary,
Galesburg, Ill.

Galesburg, June 23, 1900.

Lincoln, Ill., May 12, 1900.

Dr. G. N. Kreider, Springfield:

Dear Doctor—If I understand correctly

Article III, Section 4, of the Constitution of the State Society, it is my duty to report to you at this time the members of the State Society who, having belonged to the Brainard District Medical Society, have been suspended or withdrawn, and thereby lost their right to standing in the State Society, so far as their membership in this Society affects their eligibility. I therefore enclose such a list, although I have had reason to suppose that the section mentioned has not been very strictly enforced. Possibly each of these named belongs to some other Society. In fact, Dr. ——— mentioned his belonging to the ——— Society. Others have been suspended whom I supposed belonged to the State Society, but I do not find their names in the Transactions of 1898.

Is such a report expected from local societies, or what, if any, means is taken to enforce the rule?

Yours respectfully,
Katharine Miller,
Sec. B. D. M. S.

County and District Societies.

VERMILION COUNTY MEDICAL SOCIETY.

The society held its regular meeting in the parlors of the Aetna House, Danville, July 13. W. A. Cochran read a paper on pelvic diseases which was well received. The attendance was small and by vote it was decided to take a vacation until October the 13th, when the next meeting will be held.

At the last meeting of the St. Clair County Medical Society the following officers were elected to serve during the ensuing year:

W. H. McLean, President, East St. Louis.
Chas. Starkel, Vice President, Belleville.
A. C. Housh, Cor. Secretary, East St. Louis.
John Stack, Rec. Secretary (Permanent), East St. Louis.

B. H. Portuondo, Treasurer, Belleville.
No papers were read and no business of importance transacted. John Stack, Reporter.

Hancock County Medical Society met in Dr. Callahan's office, Carthage, May 7, 1900. Members present: Drs. Reaburn, Callahan, Ferris, Kingsley and Casburn. Dr. Boaz, President, not being present, Dr. Ferris, Vice President, presided. Minutes of last meeting were read and approved.

Dr. Reaburn reported a case of fracture with interesting features, which brought out a gen-

eral discussion of fractures. Other cases of interest were reported and discussed.

It being the annual meeting, officers were elected for the ensuing year. Dr. Ferris was elected president; Dr. Reaburn, Vice President; Dr. Casburn, Secretary; Dr. Callahan, Treas.

Drs. Jenkins and Casburn were elected delegates to the State Medical Society, which meets in Springfield from the 15th to the 17th, inclusive, of May. Dr. Kingsley was elected delegate to the American Medical Association, which meets in Atlantic City, N. J., June 5th to 8th.

After discussing various matters of interest to the society, the society adjourned.

The Crawford County Medical Society met in the office of Rafferty & Rafferty, Robinson, Ill., Thursday, July 12, 1900, at 1:30 P. M., with the president, C. E. Price, in the chair.

The following members were present: J. H. McGovern, W. H. Hoskinson, L. J. Weir, J. Kirk, W. C. Hayhurst, J. S. Thompson, J. Weir, C. E. Price, E. L. Birch, T. N. Rafferty, C. Barlow, H. N. Rafferty, Le Roy Newlin, A. G. Meserve, E. M. Cooley. Visitor, E. E. Barlow.

The minutes of the May meeting were read and approved. The secretary's and treasurer's reports were received.

The following officers were elected for the coming year: President, T. N. Rafferty; Vice President, W. C. Hayhurst; Secretary, L. J. Weir, West York; Treasurer, C. Barlow; Censors, A. G. Meserve, J. Kirk and J. S. Thompson.

W. C. Hayhurst read a well prepared paper on "Puerperal Infection," and Leroy Newlin read an interesting paper on "Typhoid Fever." Both papers elicited an enthusiastic discussion, participated in by all present.

A. G. Meserve reported two cases of diphtheria in which he had used antitoxin with good results.

The Society adjourned to meet the second Thursday in Sept. at 1:30 P. M.

John Weir, Secretary.

DECATUR MEDICAL SOCIETY.

The regular meeting was held in the Elk's Club rooms, June 28, 1900, President H. C. Jones, in the chair. There was in attendance at this meeting W. C. Wood, C. Martin Wood, S. J. Bumstead, Chas. M. Bumstead, W. H. Bell, M. D. Pollock, A. F. Wilhelm, J. S. King, J. W. Sanders, N. P. Collins, J. N. Randall, W. C. Bowers, F. M. Anderson, B. L. Maienthal, A. M. Drew, W. A. Dixon, Tyler Merriweather and the President, H. C. Jones, of Decatur; Hoover, of Lovington; Lush, of Lake City, and Keiner, of Blue Mound. The minutes of the May meeting were read and approved. W. C. Wood, the retiring secretary and Treasurer, gave his final report, which was accepted. On motion of Dr. Bowers a vote of thanks was tendered Dr. Wood for his service to the society. S. R. May, of Mt. Zion who was on the program to present a paper on the Bubonic Plague did not appear, and the paper was postponed until the July meeting. Dr. Keiner, of Blue Mound read a paper on the action of Heroin which was freely

discussed. S. E. McClelland read a paper on "Injuries to the Eye," and the discussion which followed was ably lead by J. W. Sanders. The question of continuing to hold meetings through the hot weather was brought up and it was decided to keep on meeting through the summer.
John T. Miller, Secretary.

The regular monthly meeting of the Chicago Orthopedic Society was held June 14, at the Union Hotel. President F. C. Coolidge in the chair. Subject: "Deformities of the Forearm due to Fractures." Dr. Hosmer opened the discussion by demonstrating a series of fifteen skiagraphs illustrating three cases of fracture of the forearm. One was a fracture of the radius at the distal end.—an impacted Colle's fracture,—treated with plaster of Paris cast and daily movement at the wrist and massage with perfectly free movement of the fingers, hand and wrist resulting. One was a compound fracture of the ulna and radius 1½ inches above the wrist, which he operated upon three months after the injury. The skiagraphs showed very little displacement in one position, but very great displacement in another. Operation showed the interposition of soft tissue and muscle between the fragments. Result good. The last case was one of fracture of the radius one inch above the wrist with great displacement and deformity, but with firm union, which he had operated upon twice, the first time seven weeks after the injury, and again four weeks later. Functional result good. All the skiagraphs showed the necessity of taking X-ray pictures of bone injuries in several different positions. Discussion participated in by Drs. Blanchard, Woley, Coolidge and Porter.
Meeting adjourned to September.

John Lincoln Porter, Reporter.

The fifty-third semi-annual meeting of the Aesculapian Society of the Wabash Valley was held at Terre Haute, Ind., May 10. The program was as follows:

Address of Welcome.....B. F. Swafford

SECTION ONE.

Stephen J. Young, Chairman.

1. What I have Learned in the Practice of Medicine in Thirty Years.....
A. T. Steel, Charleston, Ill.
2. Is Medicine a Failure per se?.....
F. E. Wiedemann, Terre Haute, Ind.
3. Neurasthenia....A. J. Maris, Oakland, Ill.
4. Variola. Its Modifications
C. B. Johnson, Champaign, Ill.
5. Report from 4th Ill. Vol. Inf., Spanish-American War..T. C. McCord, Paris, Ill.

SECTION TWO.

T. N. Rafferty, Chairman.

1. Gonorrhea, Acute and Chronic.....
S. E. Allen, Arcola, Ill.
2. Obstructive Disturbances of the Male Urethra..Will E. Bell, Terre Haute, Ind.
3. Abdominal Section..J. F. Smith, Brazil, Ind.
4. Delay in Surgery, Iodiform Emulsion in Tubercular Arthritis
J. A. Baughman, Neoga, Ill.

5. Uterine Curettage. Its Indications and Technique
J. T. Montgomery, Charleston, Ill.

SECTION THREE.

W. H. Tenbroeck, Chairman.

1. Heredity.....Chas. R. Bird, Toledo, Ill.
 2. Surgical Accidents, Value of a United Profession.....W. H. Hoff, Paris, Ill.
 3. Puerperal Infection.....
L. J. Weinstein, Terre Haute, Ind.
 4. Ovarian Pyo-cyst, Hydro-salpinx and Hæmato-salpinx in one subject.....
L. J. Willien, Terre Haute, Ind.
- Meeting called to order at 10:30 A. M.

The Adams County Medical Association met at Quincy, July 9, in regular session with Vice President Williams in the chair.

Minutes of previous meeting read and approved. The bill for a secretary's book was approved and ordered paid.

Dr. H. W. Baker gave, as a volunteer report, the account of a case of a male, age 16 years, who had come under his care. The boy had a slight cough, scanty expectoration, morning temperature from 96 to 97 F., evening temperature 101½ F. Moist rales over apex of left side, and a loss of 32 pounds in body weight. The sputum was negative. Another examination made in conjunction with a colleague, revealed a cardiac murmur heard best at base of neck. The pulse rate was from 120 to 140. A diagnosis of endocarditis was made, the patient put to bed, given digitalis and strychnine, and a generous and forced liquid diet. In one week the pulse had fallen to 85, the temperature became normal and remained so, appetite returned, the heart murmur disappeared, and the weight began to increase.

In the discussion which followed Dr. Nickerson held the opinion that endocarditis could not cause such a loss of weight. Dr. Center mentioned the fact that this case was a cigarette fiend, a boy who was growing tall very rapidly, one of unusual nervous irritability, and called attention to the history of the complete anorexia which had existed for the four weeks of the boy's illness. Dr. Baker in closing quoted a case of endocarditis found in literature where the loss of weight was 40 pounds in four weeks.

Dr. Christie, Jr., presented a paper, "Report of a Case of Chylous Ascites." The discussion which followed developed the fact that not to exceed 25 cases of Chylous ascites had ever been reported, and the majority of these reports were from England and Germany.

Dr. Tull reported a case of cataract operated on by himself at Blessing Hospital, April 15, 1900. The cataract was fully developed, total opacity having existed for 18 months. At the time of operation, just on the completion of the puncture and counter puncture, the aqueous humor escaped and the iris fell forward. The operation was discontinued for fear of injuring the iris. The puncture healed and no bad result followed. At a second operation the corneal incision was made satisfactorily. There was then a noticeable bulging of the cornea, the iris presented again and iridectomy was per-

formed. Following this there was a sudden spasmodic action of the ocular muscles, followed by rupture of the capsule and expulsion of the lens. A small amount of the vitreous also escaped. The eye then closed so tightly that no inspection could be made. A dressing was applied and the patient sent to bed. He made an uninterrupted recovery with fair vision. Can read coarse print and tell the time by a watch. Dr. Tull had the patient present. This clinical report was discussed by Drs. Nickerson, Beirne and Baker.

The cash receipts of the meeting were \$7.00.

Members present: Williams, Brenner, Beirne, Germann, Knapp, Tull, Baker, Koch, Sigsbee, Nickerson, Christie, Jr., Rice, Center. Chas. D. Center, Secretary.

The Pike County Medical Society met June 21, at Pittsfield, Ill. Members present: H. T. Duffield, F. M. Crane, C. E. Beavers, W. E. Shastid, J. H. Barber, E. R. Motley, R. H. Main, G. U. McComas, J. H. Rainwater, W. F. Reynolds and Geo. A. Humpert.

Meeting was presided over by Vice President H. T. Duffield.

The name of J. C. Taylor, of Hulls, Ill., was presented for membership.

C. E. Beavers, of Barry, presented an exhaustive paper on scarlet fever with special reference to its etiology and pathology, and the value of prophylactic measures in preventing complications. The following points were emphasized:

I. That scarlet fever is an acute, self-limited infectious disease, caused by a specific micro-organism. The "diplococcus scarletinae" of Class or "Crescent" of Wynekoop, because (a) This microbe is invariably present in the throats, blood and scales of persons having the disease; (b) it has been proven pathogenic for lower animals, e. g. guinea pigs and mice, producing similar lesion to those seen in the human subject and the inoculated germ has been recovered from the blood and scales of each animal; (c) the serum from a patient who has recovered from scarlet fever protects another against invasion of the germ; (d) it is a distinct and separate microbe with the following characteristics:

1. Has an extremely variable morphology, may be large or small and arranged as staphylococci, or, streptococci dependent on nutrition or environment.

2. It is able to pass from the upper air passages, through the barrier of mucous membrane directly into the blood.

3. It reacts to stains in a peculiar manner, appears to have a small hole in the center, which is really material which does not take the stain and gives rise to the appearance of a double crescent with their points toward each other, hence the name crescent given by some investigators.

II. Pathology.—The entrance of infection is usually the pharynx, or upper air passages. From here the germs pass through the mucous membrane into the blood current, producing

such lesions as degenerative changes in the spleen, bone, marrow, liver, kidneys, etc., in addition to the erythematous angina at the point of original infection.

Complications such as membranous or gangrenous anginas, adenitis or cellulitis of the neck, otitis media, etc., are usually due to associated infection by other microbes, e. g. streptococci, staphylococci or to other diseases complicating like diphtheria for example. Scarlet fever then is due to infection by and the proliferation of the specific germ of the disease usually beginning in the upper air passages and is distributed from here through the blood to all parts of the body, together with the toxins which it elaborates and other microbes, or their products, which gain access to the organism through the portal left open by the primary infection.

III. Prophylaxis.—To prevent complications it is necessary to institute early, vigorous antiseptic treatment:

(a) Syringing and spraying the upper air passages frequently with antiseptic solutions, thus inhibiting the development of germs present, preventing their accumulation in large numbers and greatly limiting their entrance into the blood.

(b) Aiding the organs of elimination by appropriate means.

(c) Supporting the strength of the patients by proper diet and stimulants when indicated.

Cases were reported showing the effects of prophylactic treatment in preventing complications and others, demonstrating what grave results may attend its neglect.

W. S. Shastid commented favorably on his presentation of the subject, speaking at length on the complication otitis media and referring to the "Chloral treatment."

H. T. Duffield reported a case of scarlet fever which had distinct and profuse desquamation of the mucous membrane of the alimentary tract.

J. H. Barber reported a case of typhoid fever complicated with phlegmasia dolens, eight years ago. The oedema has never subsided, the circumference of right leg and thigh being about twice that of its fellow. He asked for an explanation.

R. H. Main also reported a similar case and suggested that the right common iliac vein was occluded by a thrombus at the point crossed by common iliac artery, which obstruction is permanent and collateral circulation is insufficient.

In the discussion W. E. Shastid reported a case of typhoid with phlegmasia dolens and of insanity developing in the same patient during convalescence which has proven incurable, caused probably by cerebral thrombus and degeneration.

G. A. Humpert reported a case of inflammation of the rectum.

Virgil Beavers, G. F. Bechholdt and B. P. Bradburn were selected to present papers at the next meeting.

The next meeting will be held August 16, 1900, at Pittsfield, Ill. R. H. Main, Secretary.



Dr. Edgar Bolles, who died at his home in Macomb, Ill., May 14th, 1900, was born in Clyde, Ohio, January 12th, 1837. At the age of fifteen, the family went to Columbia county, New York. For a number of years he taught school in that vicinity, and read medicine, and finally entered medical college at Brooklyn, N. Y., where he completed one term, in 1868. He subsequently entered the medical school at De-

troit, Mich., from which he graduated. He practiced medicine at Pennington's Point, Ill., for a period of twelve years. In 1880 he took a post-graduate course in the Chicago Medical College, and again, in 1887, one in Rush Medical College. After that he took many short courses in medicine and surgery, both in the East and West, and was a constant student. In fact, there was probably no

man in the ordinary practice of medicine in the State who more constantly endeavored to keep pace with the advancements of medical science and art, and at the same time attend to the demands of an extensive and lucrative practice. In 1881 he removed to Macomb.

Dr. Bolles possessed the acumen and habits of a good business man as well as physician, and accumulated a fine property. He was a Free Mason in high standing, benighted in 1891. He was also a Noble of the Mystic Shrine, Knight of Pythias and D. O. K. K.

It was in medical matters, though, that Dr. Bolles took a most lively interest, and he was consequently continuously a power in local professional organizations. He was an active member of the McDonough County Medical Society, the Military Tract Medical Association of Illinois, the Illinois State Medical Society, and the American Medical Association.

Dr. Bolles was married May 15th, 1872, to Miss Fannie Penrose, of Macomb. His wife and one of two children born to them survive him.

The friends of Professor Christian Fenger propose giving him a complimentary dinner on the third of next November. Dr. Chas. C. Hunt, of Dixon, has been appointed to represent the State Society on that occasion.

C. W. Hall, chairman of Committee on Medical Societies, reports the organization of a medical society in Moultrie county. The officers and time of meeting will be found in the calendar.

Marriages, Deaths, Change of Address

MARRIAGES.

- Dr. G. F. Turner, of Streator and Miss Charlotte E. Van Nortwick of Troy, N. Y., July 2, 1900.
 Dr. Richard D. Dugan and Miss Pearl B. Huber of Pleasant Plains, July 3, 1900.
 Dr. C. E. Meerhoff and Miss Mollie E. Weigle of Chicago, July 11, 1900.
 Dr. Joseph M. Trigg, of Farmersville and Miss Helena T. Roberts at St. Louis, Mo., June 12, 1900.

Dr. John G. Campbell, of Chicago and Miss Nellie M. Hawksworth at Burlington, Ia., July 4, 1900.

Dr. H. D. Heil, and Miss Jennie Bills of Decatur, July 23, 1900.

DEATHS.

- (Furnished by the State Board of Health.)
 Birney, Samuel B., at Urbana, July 1, 1900.
 Bonn, Louis E., at Chicago, June 25, 1900.
 Crawford, H. M., at St. Charles, June 26, 1900.
 Knapp, J. B., at Bardolph, July 1, 1900.
 Matlock, Jos., at Chicago, Feb. 5, 1900.
 Mulfinger, John L., Chicago, July 20, age 46.
 Roe, Uriah C., at Franklin Grove, July 3, 1900.
 Stonemetz, Jacob.
 Tripp, Robinson, at Chicago, July 3, 1900.

CHANGES OF ADDRESS.

(Furnished by State Board of Health.)

CHANGES IN CHICAGO.

- Avery, Elmer K., 1150 Grenshaw st. to 773 Lake street.
 Becker, Wm., 1800 Barry ave. to 951 W. 21st Place.
 Becker, Wm. L., 2943 Wabash ave. to German Hospital.
 Brode, Willard D., 565 to 571 W. Madison st.
 Butt, Geo. B., 2252 Wabash ave. to Provident Hospital.
 Brown, Fred C., 215 Sebor st. to 264 S. Halsted street.
 Barnard, H. S., 2600 Wallace st. to 4031 Vincennes ave.
 Clyde, Harry E., 9314 Garvin ave. to 9139 Commercial ave.
 Damm, Eugene F., 56 Kenzie st. to Passavant Hospital.
 Davis, Ernest E., 229 28th st. to 298 Maxwell street.
 DeTarnowsky, Geo., 2416 Wabash ave. to Mercy Hospital.
 Davis, Thos. A., 987 to 979 Jackson Boul.
 Fuller, Wm., 4701 to 4707 Calumet ave.
 Frankenstein, V. S., 446 E. 63rd st. to 4534 Vincennes ave.
 Galloway, Geo., 247 Polk st. to 239 N. Clark st.
 Gaul, Adolph C. A., 439 S. Lincoln st. to 165 Center st.
 Gelderman, F. H., 1486 Roscoe st. to 279 Clybourn ave.
 Harris, A. Fuller, 514 W. 61st st. to 6106 Princeton ave.
 Henkel, Fred'k. W., 538 to 524 Ashland Boul.
 Harpole, W. S., 103 State st. to 157 E. 47th st.
 Jakubowski, Siegfried, 535 Garfield ave. to Cook County Hospital.
 Jackson, Arthur D., Wesley Hospital to 4558 Oakenwald ave.
 Kerr, Ellis K., 1323 Washington Boul. to Cook County Hospital.
 Laben, Geo. J., 388 Ogden ave. to 233 E. 22nd street.
 Lockhart, Theron D., 1259 W. 55th st. to 1259 Garfield Boul.
 Moldenhauer, Gustav H., 13 Clarinda st. to 418 W Chicago ave.
 North, Frances E., 764 W. Harrison st. to 241 Ogden ave.

Quitmet, Jos. A., 240 Wabash ave. to Tremont Hotel.

Printy, Jas. A., 589 to 598 Lincoln ave.

Richman, Silas T., 5729 to 5709 Wentworth ave.

Scott, Robt. D., 7749 Union ave. to 438 La-Salle ave.

Seapy, John A., 481 Fulton st. to Cook County Hospital.

Sears, Geo. L., 813 W. Harrison st. to Cook County Hospital.

Shultz, Chas. E., 371 Lincoln st. to 797 W. Wrightwood ave.

Smith, H. Karl, 1020 E. 59th st. to 287 Lincoln ave.

Tooker, Robt. N., Jr., 660 W. Adams st. to 263 Dearborn ave.

Tallman, Claude A., 838 W. 87th st. to 8665 Vincennes Road.

Woodford, Chas. I., 562 W. Lake st. to 440 W. Harrison st.

Warren, H. S., 1449 to 1360 Jackson Boul.

Watkins, Thos. J., 1800 Michigan ave. to 3564 Grand Boul.

Walker, Samuel J., 34 Washington st. to 394 E. Chicago ave.

Woodruff, Thos. A., 100 State st. to 103 Adams st.

Walls, Chas. B., 134 S. Kedzie ave. to 70 State st.

Webster, John C., Lakota Hotel to 100 State st.
Yung, Julius R., 531 W. Adams st. to 466 Dearborn ave.

Zahn, Benj. J., 146 York st. to 102 S. Leavitt st.

CHANGES FROM CHICAGO.

Ackley, Conway B., to Bloomer, Wis.

Buswell, Clark A., to Elgin.

Cothorn, Wm. R., to Melvin.

Hammond, F. W., to Warren.

Hart, Edson B., to Bloomington.

Hazelton, LeGrand F., to Barraboo, Wis.

Hepburn, Wm., to Ringwood.

Holden, Wm. B., to Battle Creek, Mich.

Ide, Clarence E., to Newport, N. H.

Klebs, Arnold, to Germany.

Metz, Irving W., to Peru, Ind.

Miller, Frank R., to Beardstown.

Muhlmann, G. G., to Pekin.

Osborne, Chas. K., to Denver, Col.

Piper, Ralph S., to Bloomington.

Rouse, Wm. J., to Costello, Pa.

Sidley, Frederick K., to Ponce, P. R.

Winterbotham, Wm. H., to Salina, Kan.

CHANGES TO CHICAGO.

Bartholomew, R. W., Geneva to Chicago Homeopathic Hospital.

Eads, Benj. B., to 683 Washington Boul.

Health, Clarence W., Benton Harbor, Mich., to 103 W. Adams st.

Hanly, H. H., West McHenry to 756 W. Adams st.

Mowenstrot, B. J., Milwaukee, Wis., to cor. Clark and Van Buren st.

Mitchell, James M., Pontiac to 42 Laflin st.

Palmer, F. W., Belvidere to 444 Englewood ave.

Worley, Wm. H., Villisca, Ia., to 2814 Grove-land ave.

White, Lindell E., Montpelier, Ind., to Bennett Hospital.

CHANGES FROM ILLINOIS.

Brown, J. M., Belle Ride to ———

Biles, W. P., Mt. Vernon to ———

Baker, David, Elk Prairie to ———

Edwards, Orange, Paxton to Seattle, Wash.

McLean, Frank E., Mt. Vernon to ———

Manion, Wm. O., Mt. Vernon to ———

Manion, Florence E., Mt. Vernon to ———

Plummer, R. W., Mt. Vernon to ———

Peters, Ezra, Mt. Vernon to ———

Rogers, Thos. M., Fairfield to Arkansas.

CHANGES TO ILLINOIS.

Braden, W. C., to Beardstown.

Bryan, Ray W., to Grayville.

Davidson, W. C., Deep River, Ind., to Mt. Sterling.

Johnson, Chas. W., to Batavia.

Kenegy, C. H., to Scales Mound.

Lowe, Francis O., to Kewanee.

Maxon, O. F., Jr., to Springfield.

Melow, John E., Olean, N. Y., to Lincoln.

McKibbin, John J., to Chrisman.

Neal, James W., to Charleston.

Nagle, Richard J., to Dixon.

O'Malley, Wm. H., to Kinsman.

Owen, M. G., to Lincoln.

Peck, W. B., to Freeport.

CHANGES IN ILLINOIS.

Albright, Adam C., Foosland to Sibley.

Bennett, S. B., Galesburg to Canton.

Boswell, Wm. H., Sheller to Mt. Vernon.

Crum, Edwin W., Palmyra to Lynnville.

Dunlap, Sarah E., Springfield to Sullivan.

Dunlap, James A., Hammond to Sullivan.

Dahlstedt, N. G., Paxton to Elliott.

Eddington, Royal L., Enfield to Mt. Erie.

Eichhorn, Herman G., Peoria to Spring Bay.

Frank, Wm. E., Trivoli to Itasca.

Jewell, Merrit S., Phelps to Little York.

Kelley, Marcus T., New Berlin to Springfield.

McCormick, Olin, Gibson City to Herscher.

Miller, Bernard, Peru to Evanston.

McDonald, J. T., Taylorville to Sycamore.

McClanahan, Jas. M., Alexis to Kirkwood.

Miller, Albert L., Jacksonville to Dixon.

Nelson, Eugene L., Bryant to Dunfermline.

Poland, M. E., Olney to West Liberty.

Phelps, Alonzo S., Casey to Martinsville.

Pierce, John R., Custer to Cornland.

Roberts, Francis M., Chapin to Lynnville.

Rice, Eli V., Orangeville to Brookville.

Stowell, Luther E., Edelstein to Williamsfield.

Spalding, Robt. B., Clarksdale to Clinton.

Smith, Jos. W., Bloomington to Arcola.

Smith, Cyrus H., Ottawa to Tonica.

Spriggs, Alfred R., Rinard to Flora.

Spears, Chas. H., Assumption to Charleston.

Twitchell, Jas. W., Elizabethtown to Belleville.

Thompson, Nathaniel P., James to Huey.

Werren, John B., Lake Forest to Orland.

Wells, Wm. H., Erie to Monmouth.

Yoder, Henry L., Pekin to Morton.

CALENDAR OF MEDICAL SOCIETIES.

City.	President.	Secretary.	Time and Place of Meeting.
Alton Medical Society.....	W. A. Haskell, Alton.....	P. W. Beckman, Alton.....	1st Thursday of each month
Chicago Pediatric Society.....	A. C. Cotton, Chicago.....	F. S. Churchill, Chicago.....	Monthly
Chicago Society of Internal Medicine.....	John A. Robison, Chicago.....	Ed. F. Wells, Chicago.....	1st Friday of every month Oct. to June
Chicago Surgical Society.....	John E. Owens, Chicago.....	A. W. Elsendruth, Chicago.....	Quarterly in connection with Chi. Med. Soc.
Chicago Laryngological Society.....	E. Fletcher Ingals, Chicago.....	T. Melville Hardie, Chicago.....	Monthly, except July and August
Chicago Orthopedic Society.....	Frederic C. Coolidge, Chicago.....	John L. Porter, Chicago.....	Monthly
Chicago Academy of Medicine.....	W. L. Baum, Chicago.....	J. G. Kleran, Chicago.....	1st Friday of each month
Chicago Bohemian Medical Society.....	Chas. Stulik, Chicago.....	W. J. Dvorak, Chicago.....	Every Wednesday evening
Chicago Medical Society.....	J. H. Stowell, Chicago.....	S. C. Plummer, 4305 Lake St., Chicago.....	2nd Monday of each month
Chicago Pathological Society.....	Ludvig Hektoen, Chicago.....	George H. Weaver, Chicago.....	3rd Friday of each month
Chicago Gynecological Society.....	Thomas J. Watkins, Chicago.....	Wm. H. Rumpf, Chicago.....	2nd Tuesday of each month
Chicago Ophthalmological & Otolgic Soc.....	Lyman Ware, Chicago.....	C. F. Pinckard, Chicago.....	No regular meeting
Chicago Neurological Society.....	Richard Dewey, Chicago.....	Sydney Kuh, Chicago.....	Quarterly
Chicago Medical Examiners.....	Denslow Lewis, Chicago.....	J. H. Stowell, 103 State St., Chicago.....	2nd Monday of each month
Demonstrator's Association of Chicago.....	H. A. Hadley, Chicago.....	M. L. Harris, Chicago.....	Monthly
Decatur Medical Society.....	Wm. J. Chenoweth, Decatur.....	John T. Miller, Decatur.....	Every two weeks
German Medical Society of Chicago.....	M. Herzog, Chicago.....	Adolf Decker, Chicago.....	1st Saturday September, March and June
Jacksonville, Medical Club.....	C. P. Thompson, Jacksonville.....	H. C. Campbell, Jacksonville.....	Monthly
Medico-Legal Society of Chicago.....	N. S. Davis, Jr., Chicago.....	Wm. L. Baum, 103 State St., Chicago.....	Monthly
North Chicago Medical Society.....	Carl Wagner, Chicago.....	J. N. Washington, Chicago.....	Monthly
Ottawa City Medical Society.....	J. C. Halbeway, Ottawa.....	Wm. A. Pike, Ottawa.....	Monthly
Peoria City Medical Society.....	O. J. Roskoton, Peoria.....	N. M. Sedgwick, Peoria.....	3d Thursday of each month
Physicians' Club of Chicago.....	W. H. Wilder, Chicago.....	L. H. Mettler, Chicago.....	1st and 3d Tuesday of each month
Scandinavian Medical Society of Chicago.....	Geo. A. Torrlison, Chicago.....	Thos. Watlee, Chicago.....	1st Tuesday in each month
South Chicago Medical Society.....	Chas. F. Swan, Chicago.....	John S. Davis, Chicago.....	2d and 4th Wednesdays of each month
The Medical Women's Club of Chicago.....	Gerritide G. Wellington, Chicago.....	Jeanie Trish Topinka, Chicago.....	1st Monday of each month
Twin City (Champaign and Urbana) Clinical Association.....	H. C. Howard, Champaign.....	Jas. H. Finch, Champaign.....	
Urbana Society of Physicians and Surgeons	Chas. A. Nichols, Urbana.....	E. S. Smith, Urbana.....	
County.	President.	Secretary.	Time and Place of Meeting.
Adams County Medical Society.....	Otis Johnson, Quincy.....	C. D. Center, Quincy.....	Monthly, on 2nd Monday at Quincy
Bureau County Medical Society.....	S. W. Llopkins, Walnut.....	A. E. Owens, Princeton.....	2nd Thursday of Nov. and April
Bond County Medical Society.....	B. F. Coop, Greenville.....	C. C. Gordon, Greenville.....	Meets in September and May
Clay County Medical Society.....	J. M. Bayles, Flora.....	W. E. Buregt, Louisville.....	Quarterly at Louisville
Clinton County Medical Society.....	W. T. Gordon, Carlyle.....	M. Broening, Carlyle.....	May, Aug., Nov., and Feb., at Carlyle
Champaign County Medical Society.....	T. J. McKinney, Gilford.....	J. C. Douds, Tolono.....	Monthly at Champaign
Crawford County Medical Society.....	T. N. Rafferty, Robinson.....	L. J. Weir, West York.....	2d Thurs. in July, Sept., Nov., Jan. & May
DeWitt County Medical Society.....	A. E. Campbell, Clinton.....	J. C. Myers, Clinton.....	2d Tuesday in Jan., April, July and Oct.
Douglas County Medical Society.....	Maud E. Nichols, Tuscola.....	W. E. Idice, Tuscola.....	1st Thursday in Feb., May, Aug. and Nov.
Fulton County Medical Society.....	E. W. Regan, Canton.....	D. S. Ray, Cuba.....	
Gallatin County Medical Society.....	Alex. H. Colvard, Shawneetown.....	Geo. P. Cassidy, Shawneetown.....	
Hancock County Medical Society.....	C. L. Ferris, Carthage.....	R. L. Cashburn, Carthage.....	1st Monday in May at Carthage
Jefferson County Medical Society.....	J. H. Mitchell, Mt. Vernon.....	A. H. Deardurf, Mt. Vernon.....	
Kankakee County Medical Society.....	Geo. H. Lee, Kankakee.....	J. H. Roy, Kankakee.....	1st Thursday of each month
Lake County Medical Society.....	L. M. Bergen, Aukagen.....	A. C. Haven, Lake Forest.....	Annually, 3rd Tuesday in April
Lasalle County Medical Society.....	R. W. Bower, Sheridan.....	E. H. Butterfield, Ottawa.....	3d Tues. in April and Oct. at Carlinville
Macoupin County Medical Society.....	J. S. Collins, Carlinville.....	J. P. Matthews, Carlinville.....	1st Tuesday Jan., April, July and Oct.
McDonough County Medical Society.....	D. A. Blair.....	S. C. Sremmel.....	1st Thursday of each month at Bloomington
McLean County Medical Society.....	Chas. E. Chapin, Bloomington.....	F. C. Vandervort, Bloomington.....	In March and September at Waterloo
Monroe County Medical Society.....	H. Ganter, Florville.....	L. Adelsgerg, Waterloo.....	2d Tuesday of each month at Jacksonville
Morgan County Medical Society.....	W. C. Cole, Jacksonville.....	Edw. Bowe, Jacksonville.....	
Moultrie County Medical Society.....	B. F. McMeunamy, Bethany.....	J. W. Mayes, Sullivan.....	2d Thursday of each month.

CALENDAR OF MEDICAL SOCIETIES—Continued.

County.	President.	Secretary.	Time and Place of Meeting.
Pike County Medical Society.....	L. J. Harvey, Griggsville.....	R. H. Main, Barry.....	Monthly
Ozark County Medical Society.....	G. M. McKinney, Oregon.....	H. A. Mix, Oregon.....	1st Wednesday in January and July
Physicians' Protective Assn. of Jackson Co.	W. W. Essick, Murphysboro.....	O. B. Ormsby, Murphysboro.....	2d and 4th Saturday of each month
Rock River Valley Medical Association.....	A. G. McBride, Sterling.....	A. L. Miller, Dixon.....	2d week in June and December
St. Clair County Medical Society.....	W. H. McLean, E. St. Louis.....	J. P. Stack, E. St. Louis.....	Monthly
Schuyler County Medical Society.....	J. A. Harvey, Rushville.....	C. W. Hall, Rushville.....	Monthly
Saline County Medical Society.....	J. W. Tullman, Harrisburg.....	J. R. Baker, Harrisburg.....	1st Monday in each month.
Sangamon County Medical Society.....	Geo. N. Kreider, Springfield.....	E. P. Bartlett, Springfield.....	Monthly, on 2d Monday at Springfield
Stephenson County Medical Society.....	J. B. Leitzell, Orangeville.....	J. F. Fair, Freeport.....	Annually
Shelby County Medical Society.....	Wm. J. Eddy, Shelbyville.....	A. G. Mizell, Shelbyville.....	1st Tuesday in June and December
Tri-County Medical Society.....	B. S. Evans, Watseka.....	E. E. Clark, Danville.....	2nd Friday evening at Danville
Vermilion County Medical Society.....	W. A. Cochran, Danville.....	Thos. J. Wagner, Joliet.....	2nd Tuesday of each month
Will County Medical Society.....	G. M. Peairs, Joliet.....	G. C. Klingsbury, Mt. Carmel.....	Quarterly
Wabash County Medical Society.....	J. Schnee, Mt. Carmel.....	J. H. Frost, Rockford.....	Annually
Winnebago County Medical Society.....	T. N. Miller, Rockford.....	A. G. Patton, Monmouth.....	Semi-Annually
Warren County Medical Society.....	E. J. Blair, Monmouth.....	W. A. Steele, Carmi.....	2d Thursday in Jan., April, July and Oct.
White County Medical Society.....	W. W. Apple, Carmi.....	G. W. Evans, Marion.....	1st Monday of Jan., April, July and Oct.
Williamson County Medical Society.....	W. H. Bentley, Marion.....	Frank Stubblefield, El Paso.....	1st Tuesday in May
Woodford County Medical Association.....	C. E. Davis, Feoria.....		
District.	President.	Secretary.	Time and Place of Meeting.
Asclepiasian Society of the Wabash Valley Association	Z. T. Baum, Paris.....	H. McKennan, Paris.....	Terre Haute, Ind., in May
Military Surgeons of Illinois.....	Col. Nicholas Senn, Chicago.....	Lt. Col. Chas. Adams, Chicago.....	Annually, Chicago or Springfield
Brainard District Medical Society.....	J. L. Lowrie, Lincoln.....	Katherine Miller, Lincoln.....	4th Thursday of Jan., April, July and Oct.
District Medical Society of Central Illinois.	J. N. Nelms, Taylorville.....	C. R. Spicer, Taylorville.....	Last Tuesday in April and October
Fox River Valley Medical Association.....	C. L. Smith, Aurora.....	M. M. Robbins, Aurora.....	At Elgin in May and at Aurora in Nov.
Galva District Medical Society.....	W. A. Grove, Galva.....	C. W. Hall, Kewanee.....	Annually, 1st Tuesday in May at Galva
Iowa & Illinois Cent. District Medical Assn.	C. Carter, Rock Island.....	G. E. Decker, Davenport, Ia.....	Quarterly
Medical & Surgical Society of Western Ill.	H. W. Smith, Roodhouse.....	H. A. Chapin, Whitehall.....	May 4th at Carrollton
Military Tract Medical Association.....	E. J. Sutton, Canton.....	C. B. Horrell, Galesburg.....	At Kewanee
North Central Illinois Medical Association.....	P. M. Burke, LaSalle.....	Geo. A. Dicus, Streator.....	Annually, 1st Tuesday in December
Southern Illinois Medical Association.....	W. F. Grinstead, Cairo.....	W. H. Keeset, Carbondale.....	Semi-annually

ILLINOIS Medical Journal

The Official Organ
of the
State Medical Society



A Monthly Bulletin
Edited by the
Publication Committee

Printed by
THE ILLINOIS STATE JOURNAL COMPANY.

Entered in the Springfield Postoffice as Second-Class Matter.

Volume L.
New Series, Vol. II. }
Number 4.

Springfield, Ill., September, 1900.

{ Subscription, \$3 a Year.
Single Copies, 25 Cents.

TABLE OF CONTENTS.

ORIGINAL ARTICLES.

Medicine or Surgery?—A. C. Corr, M. D., E. St. Louis.....	147
On the Evils Resulting From Naming Dis- eases or Their Supposed Causes After In- dividuals, Etc.—N. S. Davis, M. D., Chi- cago.....	151
A Report of 240 Cases of Mitigated Small- pox, With Symptoms and Diagnosis—C. E. Wilkinson, M. D., Monticello.....	156
Our Milk Supply; Some Observations at Home and Abroad—S. E. Munson, M. D., Springfield.....	168

EDITORIALS.

Organization of County Medical Societies..	178
Committee on Pathological Exhibit.....	178
Smallpox Again.....	178
Chicago Diploma Mills Abolished.....	179

CORRESPONDENCE.

Dr. Rouse in the War of 1812—O. B. Will, M. D.....	180
Complicated Case From Practice—J. M. G. Carter, M. D.....	180
Committee Report.....	182
Discussion on the Paper, "Have We Small- pox?".....	166

TRANSACTIONS.

Proceedings of the 50th Annual Meeting...	174
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COUNTY AND DISTRICT SOCIETIES.

DeWitt County Medical Society.....	185
Jo Daviess County Medical Society.....	185
Brainard District Medical Society.....	186
Champaign County Medical Society.....	189
Marriages, Deaths, Changes of Address..	189-190
Calendar of Medical Societies.....	191-192

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MAY 21, 22, 23, 1901.

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The Illinois Medical Journal.

The Official Organ of The Illinois State Medical Society.

VOL. L.
New Series, Vol. II. }
NO. 4.

Springfield, Ill., September, 1900.

{ SUBSCRIPTION
\$3.00 A YEAR.

MEDICINE OR SURGERY?*

Are they separable? If not, which is the Science? Which the Specialty?

BY A. C. CORR, M. D., EAST ST. LOUIS.
[Address of Section One.]

It is quite common to hear it said, both by members of the profession and by individuals of the laity or public, that medicine is not a science, like surgery, or that medicine embracing surgery is not an exact science.

It occurs to me that on this occasion, the fiftieth anniversary of the organization of the Illinois State Medical Society, it would be a good time to discuss these questions and reply to these statements that as far as my memory serves me have gone unchallenged all these years.

Whether medicine is a science, or not, depends largely on the particular definition given to the word "science." If perfect exactness in all its relations is necessary to constitute a branch of learning a science, why then we have only one science, and that is mathematics. If everything has to be so exact in a department of learning as that twice two are four and twice four are eight, then medicine may not be a science.

This seems to be the idea of those who say "medicine is not a science." But when we search for a definition of the word "science," no such definition can be found, nor one that implies such definiteness.

"Classified knowledge," or "knowledge classified," is about the best definition of science given by any of the lexicographers.

Measured by this definition, medicine in its general sense is unmistakably a science, and if you are captious enough to want to divide the practice into medicine and surgery, they both are still sciences.

Someone has said that "Medicine is a concatenation of sciences and an epitome of arts."

Now, gentlemen and ladies and fellows of the section in medicine, it is not necessary that I should argue farther that there is a vast amount of knowledge classified in what constitutes medical learning in a general or a special sense; and if the practice of medicine and the practice of surgery are separable, there is a mass of clear knowledge classified around either division, an amount sufficient to constitute either a science.

With this view, I hope no one of you may ever be betrayed into any kind of an admission that medicine is not a science.

I suppose you may style the practice of either medicine or surgery, in a practical way, an art; but, whether separable or inseparable, they are a science.

Whether medicine and surgery, so styled, are separable into distinct sciences, or whether surgery is but a specialized part of medicine, may properly engage our attention for a few minutes. In the consideration of this, a definition of surgery must be sought.

If we define medicine to be the application of facts in science to the relief of suffering, the promotion of happiness, the prolongation of life in the cure of disease and the cure and relief from injury, and the prevention of all diseases and injuries by accident or infection, we have made the definition comprehensive enough to embrace all that is included in the art or practice, and surgery to embrace only the manual operations required to cure disease, correct deformity and repair injury caused by violence and accident, we have made the definition of medicine inclusive, as every strict definition must be, and in so strict and yet so general a sense that they are inseparable, and there is no real and clearly distinguish-

*Read at the Fiftieth Annual Meeting of the Illinois State Medical Society, Springfield, May 15, 1900.

able division except for the convenience of teaching.

Every surgeon must be a physician, and every physician must be a surgeon, and the division can only be along the line as to whether one wishes to confine himself to treating disease with so-called medicinal agents derived from *materia medica*, or to the treatment of those diseases, deformities, malformations, accidents and injuries, by manual or mechanical processes; and in this sense there can be no strict division or separation without frequently a change of doctors during the progress of a given case.

To illustrate. Let us take a railroad accident requiring an amputation as a typical surgical case, and a case of typhoid fever as a typical medical case. Where there is no shock no medicine is needed. The amputation is made and all mechanical and manual devices are applied to promote rapid healing. So far, it is purely surgical. But suppose sepsis occurs, together with retained excreta and a typhoid state supervenes, characterized by a brown tongue, sordes, tympanites, delirium and diarrhoea, then with renewed surgical dressing eliminatives in the way of medicines must be administered to excite elimination of the retained excreta to correct the typhoid state when the case becomes a medical one in a restricted sense. Shall a doctor (?) now be called?

The typhoid case starts out in the usual way, requiring only the skill of a doctor, as medicines almost alone are indicated as eliminatives and antitoxines; but, after the fever begins to subside, a tumefaction and soreness develops in the parotid region and an abscess of the gland supervenes, or typhoid morbus coxarius develops, the case thereby becoming a surgical one; must a surgeon, in a restricted sense, be called?

While such cases are unusual, yet they do occur, and if the disease and accidents in the individual are inseparable, should they or can they be in practice?

Hence surgeons must be physicians, and physicians, surgeons. But the tendency is to so widely and early separate physician and surgeon that we have the anomaly of

some so restricting their practice to surgery that they are operators only, without the ability to diagnose.

At the rate the practice of surgery is absorbing the attention of individuals of the profession, medicine will soon be a specialism in surgery, the latter embracing the whole, instead of surgery a special part of medicine.

Indeed, we have already young physicians just out of college, addressing themselves to the profession and the people as surgeons, desiring only to operate, who have not practiced and studied long enough to make them safe diagnosticians.

Why such a one should deny himself the honor of having been a good, all round practitioner, the only true exponent of the medical sciences, I cannot comprehend.

In this connection we note an anomaly of young physicians just graduated after an ordinary college course, espousing specialism, announcing that they are specialists, and expressing a desire to limit or restrict their practice to some special department, such as surgery, diseases of the eye and ear, gynecology, the respiratory organs, etc., etc., without ever having practiced general medicine a single year, without ever having studied and practiced general medicine long enough to learn how to diagnose, or to differentiate in any skillful way in the diseases that may complicate their specialty.

In 1876, Prof. Doctor Samuel D. Gross, then confessedly at the head of American surgeons, in his Centennial article published in the American Journal of Medical Sciences for that year, when discussing the subject of specialism in medicine, said: "The well-informed practitioner is the only one who can take in the whole situation," and for that reason "is the safest one to trust." I believe this holds good today and I think the well-informed, general practitioner is the best exponent of the intelligence and usefulness of the profession; I believe all of this class will concur with me in the expression that no one ought to presume to deport himself as a specialist, except from sheer necessity, until he has prac-

teed and studied, as a general practitioner should, for at least ten years.

It is very patent to my mind, and I think it is not less so to yours, that our profession of medicine, is running rapidly into premature specialism, and I think at this session, the fiftieth anniversary of the organization of this medical society, should pass a resolution to this effect.

The tendency of the times and tendencies in medicine, amid the alluring discoveries in bacteriology and their toxine ætiology, leads us to consider whether we are not drifting away from conservatism in practice. The arrogance of bacteriology and its relation to many diseases allures us almost to the point of believing that a bacteriological toxine is the cause of every ill the human family is heir to, and by it we are tending away from any other therapeutics except those of germicides, antiseptics and disinfectants.

If we analyze the nature of the elements of many diseases, especially as we do not know the germs of many nor the germicides for many known and others that are unknown, we are forced to this conclusion.

Disease is, in a sense, typical derangement of the normal properties of the tissues that produce deranged functional activity of organs of the body, which is so typical in many cases as to constitute a history and assemblage of symptoms that may be readily recognized as a given disease.

Some remedies that are neither germicidal nor antiseptic are corrective of the deranged properties of the tissues in such a way as to correct the deranged functional activity of the organs and restore them to their normal course of action, and thereby tend to cure the disease and relieve the patient as well.

As an illustration we may divide the tissues of the body into about six simple varieties which have well defined and easily appreciated properties which are subject to

the variable derangements to which I have alluded:

Elementary Tissues.	{	Osseus. Fibrous. Muscular. Secretory. Vascular. Nervous.
------------------------	---	---

These tissues all have the common properties of susceptibility and vital affinity. By susceptibility I mean the property of receiving impressions and being influenced for harmonious action from some central actuating force. And by vital affinity, that property, not chemical or physical, by which the elementary or molecular atoms are held together so as to be capable of displaying living vital energy.

These tissues also have special properties peculiar to their intended functional uses.

The special property of osseus tissue is that of strength, firmness, and inflexibility suitable for the frame-work of the body.

Fibrous tissue, that of elasticity.

Muscular tissue, that of contractility.

Secretory tissue, that of secreting substances for uses in the body.

Vascular tissue, that of circulating the various fluids of the body.

Nervous tissue, that of sensation and transmissibility.

All these properties, both special and common, are susceptible of being changed or modified in one or two of three different ways. They may be increased, diminished or perverted.

That is, these properties may be increased or diminished in otherwise normal action or condition, or perverted—not acting along normal lines, but away from such, so as to be vicious in action.

In these conditions and varying properties of tissues of the body you see there is abundant source for diseased conditions not necessarily susceptible of being produced by germs or corrected by germicides or aseptics, but must be by remedies that af-

fect the ultimate tissues and their properties in such a way as to correct their aberrant course. That there are such remedies that affect the essential properties of the tissues I need scarcely mention more than the names of opium, strychnia and nicotine.

Remedial agents of this class act, as far as we know, alone on the properties enumerated, and may be adapted so as to correct the aberrations referred to. Increased activities may be thus diminished, diminished ones may be increased, and perverted ones corrected.

This adaptation of remedies to meet these varied and intricate conditions constitute the first display of tact and ingenuity in treating disease.

There are typical variations in the changed properties referred to that create the assemblage of symptoms that characterize and constitute some of our most familiar diseases, and in the absence of any known germicide or the knowledge that it is a germ-produced disease, the conditions manifest must be analyzed and the indications met by special remedies addressed to the ultimate conditions so determined. So we have yet to study disease and therapeutics from another standpoint other than that of mycology, bacteriology, germicides, antiseptics and antitoxines.

DISCUSSION.

DR. M. S. MARCY, Peoria: Dr. Corr has given us an excellent paper, and his argument, that every man should at least practice medicine ten years before posing as a surgeon is worthy of notice. He stated in his paper that every surgeon should be a physician. That is true. He also stated that every physician is a surgeon. Am I correct, Doctor?

DR. CORR: Yes, in the main.

DR. MARCY: Now, I must beg leave to differ from him in that statement, and I desire to say that every physician is not a surgeon by a long way, and the attempts of many physicians to become surgeons have been detrimental to the population. This has been more particularly noticeable in the past few years since appendicitis has become so fashionable a disease and so many physicians attempt to operate on such cases. I have noticed this not only in our own community, but in others, and people who were supposed to have had this disease have had their lives sacrificed in many cases by physicians who thought they were surgeons. So I must

enter a protest against the remark that every physician is a surgeon. No doubt, he should be, but it is impossible for every physician to be a good surgeon. He may attempt to be one. Let him think in his own mind that he is; it may do him some good, but as a rule the average physician lacks surgical skill. His fingers are untrained. He does not have the experience that is required of men who take the lives of patients in their own hands in operating upon them.

DR. E. J. BROWN, Decatur: The position taken by the gentleman is two-sided. I would like to ask whether the poor fellow with typhoid fever is not as bad off with a poor doctor as is the fellow with appendicitis with a poor surgeon? I think they would fare about the same. Every man who poses as a surgeon or specialist is not such in the true sense of the word. Unfortunately for himself, that fact does not make him a surgeon any more than it makes a man who poses as a practitioner a good general practitioner. It seems to me, the important point in this discussion is that the specialist should be a general practitioner first. There is no question about that. There will be poor surgeons and poor general practitioners, and the same rule affects both sides of the question. The all-around country doctor is the best man everywhere. The surgeon should be a general practitioner, if he is a good surgeon. The general practitioner must have some general knowledge of surgery. While he may be devoid of great manual dexterity, still he should know about surgical work, and when it is necessary to aid his patient, but I doubt very much whether we will ever be able to legislate regarding this sort of thing.

DR. R. H. HENRY, Peotone: There are two sides to this question, and it strikes me that the general practitioner should be able to amputate a limb, to ligate a bleeding vessel, and be able to perform a laparotomy. I do not see how the general practitioner can evade doing these things at times. All of us must be surgeons in the true sense of the word, and it behooves every man to qualify himself as best he can. I firmly believe that with our present knowledge we are able to determine when and when not to operate in cases of appendicitis. When we have appendicitis on the increase; when we know we have the formation of pus, I think if operation is undertaken early the death rate will be very small. On the other hand, if we are reasonably certain that pus has not formed, we may be guided largely by that. We may wait. We can make frequent blood examinations in order to keep pace with our case, and it is quite as important to know when not to operate as to know when to operate. It is well known that the country practitioner cannot always send to the city for a competent surgeon. In many cases he can do this, and it should be done whenever it is possible. Personally, I have never felt that the physician has any right to evade the responsibility of doing a major surgical operation. It has been said that fully eighty per cent. of

the cases of appendicitis recover without operation, so that it is hardly necessary for the general practitioner to send to some city for a competent surgeon in many cases.

DR. J. F. PERCY, Galesburg: I would like to ask the doctor where he got his statistics of eighty per cent. of recoveries from appendicitis without operation.

DR. HENRY: My previous remarks had reference to what is known as the catarrhal form of appendicitis, and I got my statistics from Dr. Senn, of Chicago. I do not know where he procured them, but you can ascertain that from him.

DR. O. B. WILL, Peoria: To my mind there is no system of classifying men as to whether they will be good physicians or good surgeons. Some make good diagnosticians, some good therapists, some good operators. But what we expect of every man, it seems to me, is that he will have sense to know and the honesty to express himself when he does not know.

DR. J. N. NELMS, Taylorville: The success of a practitioner must depend largely upon his ability to do this or that. No person in this age of the world can graduate without preparing himself for surgery, as well as for the practice of medicine, and in order to be successful in surgical work he must necessarily be somewhat of a skilled mechanic. This requirement should be exacted of him before he graduates. After he has graduated, if his ability and inclinations are toward surgery, he should be the person to know it. If he has not the aptitude for a surgeon, he should be the first to know it. He should not tamper with anything unsuited to him. The practitioner, whether he fits himself for medicine or surgery, must understand his anatomy; he cannot diagnose disease properly unless he clearly understands it. If a man manifests skill in a particular direction, the people will soon know it.

DR. CORR (closing the discussion): I could not say all that might be said relative to this subject in a short paper within the time limit. My object in writing the paper was to call the attention of the profession to what is patent to all of us, namely, that we are running prematurely into specialism; that is, we have physicians who practice specialism from the beginning without practicing general medicine long enough to master the means of diagnosis. It is true that we cannot advance very far in practice without doing more or less surgery. The opening of a boil is a surgical procedure; while the administration of medicines to correct an impoverished condition of the blood is a medical procedure. The man who graduates in medicine ought to be skilled along both medical and surgical lines, so that he can determine when to resort to medicinal measures in a case and when to operate. I have tried to create a sentiment on part of the profession to stop this premature specialism, and I ask physicians to give this subject their careful consideration. Surgery is the mechanical department of the practice of medicine. All practitioners must be

surgeons to a certain extent, and we must educate them not to do capital operations without first learning how to make accurate diagnoses. There are many instances too ridiculous to mention of men who may have the manual dexterity, but who have not the ability to determine whether a case comes under the head of operable, or whether it should be treated medically.

ON THE EVILS RESULTING FROM NAMING DISEASES OR THEIR SUPPOSED CAUSES AFTER INDIVIDUALS, AND THE IMPORTANCE OF MAINTAINING A CLEAR DISTINCTION BETWEEN ETIOLOGY AND PATHOLOGY.*

BY N. S. DAVIS, M. D., CHICAGO.

Every reader of general medical literature is liable to meet with allusions to diseases designated only by the name of some member of the medical profession, as Adams' Disease, or Addison's, Barlow's, Basedow's, Bright's, Duchenne's, Graves', Jackson's, Maniere's, Stokes', Thomsen's, Weil's, etc. The evils resulting from such practice are, first, that the name conveys not the slightest information concerning the nature, location or tendencies of the disease alluded to, and is, therefore, an arbitrary tax of the memory, unaided by association of any kind, and often occasions the loss of valuable time in making references. Second, it is an erroneous mode of expression, inasmuch as it literally implies a disease belonging to, or suffered by, the doctor whose name it bears. When we say Addison's horse, we certainly mean a horse owned or possessed by Addison. But when we say Addison's disease, we do not wish to imply that it is a disease possessed by Addison, but only first described by him. The names of particular diseases should be based on some prominent feature of their pathology or symptomatology of more or less diagnostic value. Groups or classes of disease arising from some one general cause may be properly designated by the name of such cause; as when we speak of contagious, infectious, malarious and septic fevers.

*Read at the Fiftieth Annual Meeting of the Illinois State Medical Society, Springfield, May 16, 1900.

Or they may take their class name from some symptom common to all the group, as when we speak of eruptive fevers. But when we wish to designate a particular disease or a member of a group, a name should be chosen that would be distinctive as indicating its identity. Consequently we designate each member of the eruptive class, as variola, varicella, rubeola, scarlatina, etc., in accordance with the special form of its eruption. The name of a class of diseases should never be used to designate individual cases of that or of any other class. Yet how often are we told in conversation, or through the press, that Mr. A. has "the malaria," or Mr. B. has "the septicemia," or "blood poison," and Mr. C. has died suddenly from "the heart failure." The frequency of such expressions indicates the prevalence of a degree of mental heedlessness and lack of accuracy of expression much to be regretted. The same objections apply, though perhaps in less degree, to the constant tendency to name the specific causes of disease after the physician who first describes them or proves their connection with some disease. Thus we have Eberth's bacillus (typhoid), Koch's bacilli (tubercle and cholera), Klebs-Löffler's bacillus (diphtheria), Obermeier's Spirillum (relapsing fever), Canon or Pfeiffer's bacillus (la grippe), Laveran's haematozoon (malaria), and numerous others. The only valid excuse for attaching the name of the discoverer to each pathogenic bacterium or germ, is the absence of a reliable classification by which each germ could receive a scientific designation. Even without such classification it would be both more convenient and more intelligible to designate each specific cause by the name of the disease it is supposed to produce, as tubercle bacillus, cholera bacillus, etc., instead of by the name of its discoverer. The mention of bacilli or micro-organisms as specific causes of disease induces me to invite your attention to the constant tendency at the present time to attribute all acute diseases to some one specific cause, the presence of which, is made the chief factor in the diagnosis with little regard for the act-

ual morbid phenomena presented by the patient. To such an extent has this been carried in relation to several important diseases, that unless the presence of the alleged cause could be shown, the identity of the disease was denied even though every other symptom and morbid condition belonging to the disease was present. Thus when in from 15 to 20 per cent of all the cases presenting in full the recognized phenomena of diphtheria the Klebs-Löffler bacillus could not be found, they were at once declared to be only pseudo or false diphtheria.

And on the other hand, if the simplest blush of redness in the fauces was accompanied by the presence of the special bacillus, it was at once entered as genuine diphtheria and helped to increase the ratio of recoveries. The same rule has been applied to cholera and to tuberculosis and is founded on the assumption that such diseases can be produced by only one variety of pathogenic germs for each disease. Is the assumption, however, sustained either by adequate proof or by correct reasoning? The numerous and important discoveries and improvements in the department of etiology during the last twenty-five years, have so engrossed the attention of the profession that many appear to regard the special cause as the whole disease, or at least, the only thing requiring attention. Such appear to forget that all diseases are simply deviations from the healthy condition of function or structure of living organized matter. And as the healthy living structures of the body are capable of being nourished and sustained in health by a variety of food, so there is nothing unreasonable in the supposition that such deviations from health as constitute disease, may be produced by several causes similar in nature or acting upon the system in the same direction. If, as ample clinical records show, many cases have been met with presenting every clinical feature of diphtheria with other bacilli instead of the Klebs-Löffler bacillus present; cases of cholera in every stage with other than the comma bacillus; and pneumonia in abund-

ance with the la grippe and other bacilli present instead of the pneumococcus, why not freely admit that all such diseases may be caused by more than one pathogenic germ, and then study their relative frequency and importance, instead of dividing the cases of each disease into true and false varieties when the actual morbid conditions are the same. The enthusiastic study of bacteriology, in search for specific causes of diseases, has not only resulted in relatively less attention to the actual morbid conditions in the successive stages of each disease, but it has induced a similar enthusiasm in the search for specific remedies, for either neutralizing the supposed causes or rendering the patient immune to their effects. And we have seen the supposed specific remedies, whether antiseptics, antitoxins, or organic extracts given in all stages of acute diseases, regardless of the fact that all such diseases have a stage of incubation, a prodromic or forming stage, a stage of development or active progress, and a stage of decline, each presenting indications for treatment peculiar to itself. Thus when a pathogenic germ or a toxic agent gains admission to the living system a definite period of incubation is required for it to multiply or evolve its specific ptomaines, during which, if the proper antiseptic or antitoxin is given, the evolution is prevented and no active disease follows. If the incubative period has passed with sufficient evolution of toxic material to induce feelings of indisposition constituting the prodromic stage, the antiseptics or antitoxins may still be given to limit as much as possible the amount of toxin to be evolved, and in addition such remedies should be given as would increase the activity of the liver, kidneys and other eliminating structures through which more or less of the disturbing agents may be expelled. When the active stage has fairly begun, the evolution of specific toxic material is completed, and further use of antiseptics is useless and but little can be accomplished by antitoxins, but the urgent indications now are for such remedial measures as will lessen the irritative action on the various

structures of the body, and keep the eliminating organs sufficiently free to favor the discharge of both the specific toxins and the products of natural tissue metabolism until the climax has passed and the stage of decline has commenced. Then a careful adjustment of the nourishment, and the enforcement of good local sanitary surroundings will favor early convalescence.

Much of our success in the treatment of all infectious general diseases will depend upon the accuracy with which we adjust our remedies to each stage in the progress of the disease instead of depending upon supposed specifics given in all stages. There is another indication involved in the management of all acute diseases of great importance, and applicable in all stages of their progress, namely, the support of the natural vital resistance of the living body to the active toxic agents. Such vital resistance is largely dependent upon the activity and efficiency of the vaso-motor and respiratory functions by which the oxygenation and decarbonisation of the blood is maintained and tissue metabolism with excretion promoted.

Whatever lessons the efficiency of respiration or diminishes the capacity of the blood to receive oxygen and distribute it to the tissue of the body, lessens leucocytic activity and tissue metabolism, both constructive (repair) and destructive (waste); and therefore necessarily diminishes the vital resistance to any and all toxic agents. Consequently to secure for our patients an abundance of pure air, wholesome water, appropriate food, and strict cleanliness of both person and surroundings, are conditions that should receive the attention of the physician during every stage of diseases, especially those of an infectious character. Beside these important and generally acknowledged objects, there is another of no less importance that has received far less attention though of a negative character. I allude to the importance of abstaining from the use of such drugs as uniformly diminish vital resistance, either by depressing the vaso-motor and respiratory func-

tions or by interfering with the oxygen distributing function of the blood. To this class of drugs belong all the well known anesthetics, ether, chloroform and alcohol; and all the coal tar antipyretics and analgesics. It has been clearly demonstrated that they all diminish the oxygenation and decarbonisation of the blood, lessen the activity of leucocytes and retard both metabolism and excretion of toxic products.

Consequently they should never be administered continuously from day to day, but if used at all it should be for the briefest periods of time possible. The essential vital functions of our patients should not be jeopardized for the mere temporary relief from pain or nervous restlessness, and we should ever remember that it is the morbid conditions of our patients that we are to treat, and not simply the pathogenic germs that made them sick. Etiology, pathology and therapeutics should each receive the equal and most thorough attention of the physician if he would comprehend most clearly their mutual relations and reap the greatest and most satisfactory success in the practice of his profession.

DISCUSSION.

DR. HAROLD N. MOYER, Chicago: After listening to the interesting paper of Dr. Davis, I think you will agree with me that he has not lost his old-time vigor, and that the paper is not devoid of the keen logic which we have heard from him in the past. I do not rise to discuss the entire paper of Dr. Davis, as I am not competent to do so. However, he calls attention to a matter which, so far as I know, has not yet been referred to in this Society, namely, to the vicious nomenclature of medicine. He has but briefly called attention to some of its evils, that is, naming instruments, germs of disease, symptoms, etc., after individual men. This is a growing evil, and one that is covering the pages of medical text books and is surrounding the study of medicine with difficulties entirely extraneous to the subject, and sometimes I fear that we are almost forgetting that medicine is a science, apart from the books or any statement of it in writing, and that all there is of written literature in medicine is simply a means to an end. The names, classifications and descriptions are a mere instrument in the hands of science, and not an end in itself. It seems to me, that the time is almost ripe when organized medicine ought to take some action with a view to clearing out this rubbish. Some properly authorized committees should take this mass of stuff which is absolutely worthless and weed it out of medi-

cal literature, and the revision of terms should be so made that everyone of us can accept it as a standard. The literature of medicine has been overloaded to an incalculable extent with new titles and new terms, so that one scarcely realize how great the burden is until he makes a thorough analysis.

DR. H. V. FERRELL, Carterville: I have been reading medical literature for forty-two years, and most of you can very well remember how much mental effort we have wasted in acquiring a knowledge of medical terms. I have been very much pleased with the paper of Dr. Davis. It is a good one. I am glad to see Dr. Davis with us. He has exerted a powerful influence in educating students of medicine. Within a few years past attempts have been made along the line indicated in the paper. Dr. Richardson, of New Orleans, a few years ago endeavored to write a book on this matter. Dr. Joseph Leidy within the last ten years wrote one of the best anatomies in the English language, and made attempts along this line. Another man in Baltimore, whose name is Barker, I believe, wrote an excellent work on the nervous system. It is to the medical authors, like Dr. Davis and others, who write books, and those who publish medical journals, as well as those who are teaching, that we must look for this reformation, and I believe the medical profession in association with the medical schools and medical authors can do something in this way. It is our duty to do it. These terms are usually begotten by young men who want to get names that will go dangling down the ages like a tin can fastened to a dog's tail.

DR. JOHN H. HOLLISTER, Chicago: I am heartily in favor of the central thought of the paper, to which I emphatically add my endorsement, and I am pleased to see, considering the changes incident to these latter days of advanced thought, that Dr. Davis is still so essentially orthodox. We cannot emphasize too strongly the point made by the last speaker of creating a demand by the medical profession for simplicity of terms that shall be self-explanatory, as far as possible, and it is to be hoped that some time in the not far distant future we may come to the end of the creation of new terms for medical mixtures. Our therapeutical manufacturers are constantly creating technical terms which they apply to new drugs and the various preparations that are put on the market for our use. It seems to me, we should call a halt in this respect.

It has been a matter of satisfaction to myself and my patients to give them definite names for their diseases, and I have always found it desirable to do so, if possible. If you will permit me, I will relate the little story as an illustration which I heard more than forty years ago from the lips of Dr. Brainard. He was called to the extreme western part of the city to see a man who had been working in the quarries. The man had been exposed a good deal; he drank large quantities of whiskey, and was suffering from cirrhosis of the liver. He

was in the last stages of ascites and anasarca. At the request of a prominent man, who had charge of the quarry business, Dr. Brainard was induced to visit this laboring man. He went. He hitched his horse under some trees, and visited the little shanty, which was limited in dimensions. It was an extremely hot day. He saw the man, and knew there was very little hope for him, and started to meet his horse. As he was leaving the house a woman intercepted him, and wanted a private communication with the doctor. She said, "What is the matter doctor?" He has got the dropsy. "What kind of dropsy, doctor?" He has got the water dropsy, madame. The woman retorted, "Doctor, you don't know your business; he has not drunk any water for ten years." (Laughter.)

DR. M. W. SNELL, Montgomery: Dr. Davis' paper interested me very much. Anything that emanates from him is always good. I want to say, that the younger men of the Society have all gone through the same trouble that the older practitioners have in trying to master medical terms; but I wish to say in defense of those whose names are applied to diseases or signs, that very often they are not responsible for it. For instance, there is a sign called the Allis sign (relaxation of the fascia between the crest of the ilium and the trochanter major). Now, Dr. Allis would not have permitted such a thing to go into medical literature of his own accord, but his assistant applied his name to that sign, which now is to be seen in many of our text books on surgery.

DR. A. C. CORR, East St. Louis: I rise to express my hearty concurrence in the paper of Dr. Davis, and in the remarks that have been made on it. There are two ideals embraced in the paper. One is a vicious nomenclature, which it is desirable to change; the other one is that the present tendency of the age in the study and practice of medicine is to ignore all remedies that are not germ destroyers, antiseptics or antitoxins, etc., Dr. Davis has told us in a forcible way that there are other properties and other essential elements in therapeutics that are not germicidal, that are not germ destroyers, that are not antiseptics, or aseptics, but which should receive some attention from the profession. He has emphasized the point mentioned in my own paper, that we should study the physiological action of a certain class of remedies to meet the indications in the treatment of many of the diseases, the germs of which we do not know, and if we knew them, we do not know their germicides.

DR. T. J. PITNER, Jacksonville: I desire to express my great gratification at hearing the excellent and very interesting paper of Dr. Davis. I wish to say a word or two regarding one point which impressed me as of great importance, namely, that we should not dwell too much upon any one specific cause or factor either in the naming, the consideration, or treatment of disease. Even in the specific diseases so-called, where we have a definite bacillus which is recognized as characteristic of that

disease, and which is said to cause it, yet it is seldom that it acts alone. It is modified by other germs and other processes that have to be considered. For instance, in diphtheria we have not only the Klebs-Löffler bacillus, but we have the streptococcus, and it may cut a greater figure than the original bacillus which is ever present in healthy throats. If we accept the teachings of bacteriology, we must recognize what is known as the mixed infections which meet us on every hand. Then, too, in the matter of naming diseases, it is very important that nomenclature should be more carefully considered. We should strive for something simple, and yet in a measure descriptive of the condition or disease. We cannot always be absolutely correct in description. I have often encountered difficulty in naming a disease to a patient, particularly where we recognize several important factors. I do not think it is wise to commit ourselves at once to a specific name, when there are present other important etiological factors. It is not always necessary to name the disease, although the people think we should do so.

DR. DAVIS (closing the discussion): I would not take up any more of the time of the Society now were it not that my paper was short, but there are two points I may not have made as clear as I should like to have done in my effort to curtail the paper. One of them is this: The bacillus does not produce disease as a physical agent in and of itself, because you will find bacilli in the healthy subject. You will find them in the atmosphere all around us. But the bacillus, when it produces disease, does so by meeting such a condition of the living body as is favorable for its developments and multiplication, and it evolves what we in these modern days call ptomaines, toxins, toxalbumins, etc. It is the thing that the bacilli evolve that produces disease. But have you studied closely to see why and when they evolve it? They evolve it under specific laws of development, and it has a limited stage of evolution; hence, as I said in my paper, all of these diseases have a period of incubation. Look over the most common works on the practice of medicine and they will tell you about a period of incubation. One disease takes two weeks, another three days, another six days to develop, this being the period of incubation. I have tried faithfully to see if I could not find some method by which I could arrest the further progress or development of typhoid fever when a patient with this disease came under my observation; yet in the foremost stage, before the patient went to bed, what we call the prodromic or formative stage, if we could get this class of patients under our care in some way, to recognize the period of incubation, we might prevent the further development of the disease, because at this stage, under the judicious administration of moderate antiseptic remedies, an abundant supply of fresh air, the administration of water, and perfect cleanliness, the system would strengthen its vital resistance, so that the microbes would be overcome and not produce the disease. I have seen

some cases in which I thought this was accomplished years ago. I was very strongly reminded of that point when the gentleman read his paper on pneumonia and its contagiousness. What made the pneumonia contagious? The patient was cooped up perhaps in foul air, without cleanliness, without the vital processes by which the living body resists the army of microbes that surrounds it. If poor pneumonic patients had had good surroundings, plenty of fresh air, and opportunity for the blood currents to circulate freely, the pneumococcus might not have kicked up his heels so lively, and he might not have killed anybody. You are looking for the cause of disease; why don't you investigate more the powers of the living body to resist it? Go to work and find out the habits of people, their mode of life, what they eat, what they drink, what lowers the vital processes of their bodies, and makes them succumb one after another. When you do that systematically, you will make progress in the line of doing away with tuberculosis. If you will turn your attention to the human body and fortify it, study the proper mode of living and of maintaining the vital resistance of the body, and eradicate from society the foul blot and stain that are demoralizing the human race, you will have no need of testing for tuberculosis either in the dairy or in your own houses. (Applause.)

A REPORT OF 240 CASES OF MITIGATED SMALLPOX WITH SYMPTOMS AND DIAGNOSIS.*

BY C. E. WILKINSON, M. D., MONTICELLO.

During the summer of 1899 smallpox became epidemic in different localities in Illinois. The disease had previously been epidemic in some of the other Northern States. The first appearance of smallpox in the United States was in some of the Southern States, and from these states it spread into the Northern States.

On account of its unusually mild type the disease from a diagnostic point of view met with much controversy. In most instances several cases were present before its real nature was discovered, but it was early recognized as infectious. Wherever the disease appeared it was of the same mild type and very few deaths were reported. The same difficulty in diagnosis was experienced in the North as in the South. The most common error in diagnosis was chicken-pox, and next to that was impetigo con-

tagiosa. In some localities it was called "Cuban Itch" and in others "Puerto Rican Chicken-pox," while a few physicians maintained that it was a new skin disease.

The beginning of our epidemic dates back to the early part of October, 1899. The latter part of September one of our townsmen stopped over night at Dixon, Ill., where smallpox was epidemic at that time, and in about twelve days afterwards he was taken sick. After the third day he improved greatly, but an eruption appeared, more especially on his face, of a questionable character; yet he was able to attend to his daily business without experiencing any great inconvenience more than annoyance from the blisters on his face. In about twelve days after the eruption appeared (Oct. 20th), two of his children were taken sick with the same disease, but more severe. Both made a good recovery and one returned to school in about three weeks. In a short time a number of children from the room to which this child went were taken sick, and the disease spread rapidly.

The first case mentioned had a history of vaccination in early life, but the two children had never been vaccinated. Three older children in the family who were successfully vaccinated about six years ago did not contract the disease. The principal objection to the diagnosis of the disease as smallpox, is that it is too mild in form for smallpox. It is urged that if it be smallpox, among the great number of cases we have had there would have been a number of deaths. This question of fewness of deaths has been difficult to answer, as I have not found an account of a similarly mild epidemic at any time, and the explanations given for its mildness have not been satisfactory.

The theory that some have is, the disease has lost its virulency through its sojourn in the tropical climate, and on its return to the north encountering the sturdy constitutions of our northern people affects them less severely than of old. It was noticeable that during the months of October, November and December the disease was not so severe as in the colder weather

*Read at the Fiftieth Annual Meeting of the Illinois State Medical Society, Springfield, May 18, 1900.

of January and February. In March and April the cases again became milder.

While it is true that many of our patients were very sick, out of the whole number of cases—about 250—fully 50% of them could have continued their daily duties after the pre-eruptive symptoms or initial stage was passed, without great inconvenience.

The photographs that are shown were taken from the best marked cases and show fairly well the characteristic eruption. In taking the photographs I tried to secure pictures showing the eruption in its different stages. A few of these only are here shown. Many attempts resulted unsuccessfully as a result of my limited experience in photography.

The study of vaccination in relation to the cases in our epidemic has been of interest. I have collected statistics on about 240 cases, including cases outside of our city, but in the county. Dr. Champion, of Mansfield, reported 18 cases to me. Two of that number had a history of vaccination but no scars were present, and 16 had never been vaccinated. Dr. E. H. Graves, of Bement, reported 16 cases and not one had ever been vaccinated. During our epidemic 52 cases came under my observation, 20 males and 32 females. Of this number 48 were vaccinated, and four had faint scars from vaccination, but not within 20 years.

This leaves 154 cases of which I obtained statistics. Of this number 20 had a history of a previous vaccination; 132 cases were unvaccinated. The following table including cases reported by Champion and Graves with 206 Monticello cases will show the effect of vaccination. Table No. 2 shows the ages.

TABLE No. 1.

	Cases. Deaths.	
Vaccinated within ten years...	3	0
Vaccinated in early life.....	21	1
Pre-vaccinated cases	24	1
Unvaccinated cases	209	1
Cases having a previous attack of smallpox	2	0
Vaccinated after exposure...	5	0
Total	240	2

TABLE No. 2.

	Cases. Deaths.	
Under five years.....	28	0
5 to 12 years of age.....	68	0
12 to 21 years of age.....	59	0
21 and upwards	85	2
Total	240	2

The three patients vaccinated within ten years had mild attacks; 2 were over 12 years of age and one between 5 and 12. The 21 patients which had been vaccinated in early life were all adults. The death was that of a man about 56 years old who had a large scar from vaccination dating back 40 years. He died during the vesicular stage of the eruption. The eruption was profuse about the face, nose and throat. He was not a robust man and was said to have some cardiac trouble which may have been a factor in his death.

Of the two cases which had had previous attacks of smallpox, one was a man about 40 years of age, who said he had smallpox when 5 years old. He had a light attack, the eruption disappearing before the vesicular stage developed. The other case was a man 54 years old who had smallpox when 2 or 3 years of age. This attack was more severe than the previous one and many pustules formed on face and hands.

The death in the unvaccinated patient occurred in a man about 36 years old. He had been a confirmed invalid for a number of years. His death was reported to the insurance company as due to smallpox and complications.

The persons having smallpox who were vaccinated after being exposed had very mild attacks in most cases, especially if virus took effect before the eruption appeared.

I made it a rule to vaccinate all non-attacked members of families having the disease as soon as the diagnosis of smallpox was made, and in no instance did any of these contract the disease. In my experience I found the period of incubation 12 to 13 days. The contagious period does not appear to develop before the eruption, the contagium being most virulent the second and third days after the vesicular stage be-

gins. The disease may be transmitted, however, as long as the scabs remain. The pustular stage is not an essential factor in the eruption of smallpox. In fact I am inclined to believe that the germ of smallpox is not the cause of the pustular stage, but that this stage is a septic condition following the vesicular stage and is due to a pyogenic micro-organism.

Symptoms: The patient is usually taken suddenly ill. A chill generally marks the onset of the disease, which may constitute only a slight rigor or may be so slight that it passes unnoticed by the patient. Occasionally the chill is preceded one or two days by a general malaise, or the patient experiences a peculiar fainting sensation in which there is inability to walk.

Fever soon develops and by the close of the first day the temperature is 103° or 104° , and may continue to rise to 106° or even higher before the eruption appears. When the fever is high prostration is usually marked and there may be delirium. The pulse and respiration usually correspond closely with the temperature; however, respiration is occasionally very rapid and may be to such an extent as to cause marked dyspnoea.

At the same time of the appearance of the fever, irritability of the stomach occurs, which may be only slight, or may be very distressing and continue during the initial stage. In children sick stomach may be the first indication that the child is sick. In adults irritability of the stomach is frequently present but may not cause more than nausea. In some few cases vomiting is a most distressing symptom. Anorexia is usually present from the first stages; the tongue is dry with a heavy brown coat. Constipation is the rule but diarrhoea may be present in children.

Muscular pain is also very common as an early symptom and may be slight or severe, or it may be absent. Pain in the lumbar region is the most constant of muscular pain and in some cases is a most distressing symptom. Severe lumbar pain is not a common symptom in children, indeed only two children coming under my observation complained of pain in the back;

but in adults fully 75% had pain in the lumbar region and many very severe. The pain occasionally passes upward into the dorsal region and downward into the lower extremities. There may be severe pain in the intercostal and pectoral muscles. Aching of the bones may be present.

Headache is probably more generally present than any other distressing symptom. It usually begins early, about the same time as the fever, and continues until the fever disappears, frequently returning when the eruption is fully developed and continuing several days. It is usually frontal headache and may be quite severe.

These symptoms indicate the onset of the disease or the stage of invasion. They continue in a varying degree of intensity 2 to 4 days (usually 48 to 72 hours from the initial chill), when they begin to disappear, and the patient is greatly improved. The temperature now falls 2° to 4° , the back ache disappears, the stomach is retentive, and the headache is relieved.

The patient is now greatly improved, usually leaves his bed, frequently not to return, again. However, in the more severe form the patient sits up, but when the eruption is on two or three days he returns to his bed to remain for a few days (3 or 4). In a few cases the pre-eruptive symptoms were marked continuing about the usual time, then disappearing. After this the patient improves rapidly, and is soon in his usual health, no eruption having developed.

Eruption: From 60 to 84 hours elapse from the initial symptoms to the first appearance of the eruption. Previous to this a rash may appear over the body (this was only noticed in a few cases). The rash may be petechial or erythematous. (One case, a child 2-years old, was taken suddenly sick at night; I called and found the child in a convulsion, temperature 104° . The child was quite sick for 24 hours and then improved some, but in about 48 hours was completely covered with an erythematous rash. This remained about twelve hours and then gradually disappeared, after which the typical eruption developed.) Just before the eruption appears the patient frequently complains of dryness in the

throat, and on examination the eruption may be found on the fauces which in many cases aids in making an early diagnosis.

The eruption usually makes its appearance first on some parts of the face, forehead or neck as a red spot (macule), slightly elevated at first, but soon become distinct papules; and within 24 to 48 hours are dense, firm and hard, and under the finger feel not unlike a foreign body. By the time all the papules are developed (which is from 24 to 48 hours usually) the first that appear begin to break down at their apices and a distinct vesicle is formed. By the third day the vesicular stage is pronounced. About this time the so-called umbilicated condition can be noticed. There is only about one umbilicated vesicle in every 15 to 30. The vesicles are usually discrete over the body, but on the hands, face and feet they may assume the semi-confluent or the confluent form.

By the fourth or sixth day after the eruption appears the vesicles may change into pustules. In a few hours shrinking and drying begin and a yellow crust is formed. This crust dries and is rubbed off leaving a pigmented spot.

In many cases the pustular stage does not develop. The papules develop into conical elevations with small vesicles at their summit containing a sero-purulent fluid. These usually dry and desiccate rapidly and when the crusts have fallen off the solid base of the pock remains for several days (10 to 14 or even longer). In the milder form the true skin is not actively involved but in the suppurative changes the true skin is slightly affected.

There is generally a red areola around each vesicle or vesico-pustule. The pustules desiccate rapidly forming thin scabs, which when they have fallen off leave pigmented spots, but little or no pitting. The cases having the confluent form on face and hands show the most tendency to pitting. In the vesicular and vesico-pustular stages the intervening tissue is occasionally much swollen. In a few cases the face was swollen so that the features were entirely destroyed, and the eyes were almost closed. In only a few cases has the

secondary fever occurred that is described as being such a prominent symptom in unmodified smallpox.

The eruption may appear on the mucous membrane of the nasal cavities, the mouth and pharynx, and during the vesicular stage produce most distressing symptoms. At this time dyspnea may be a most distressing symptom. The papules vary greatly in number. Some patients are covered from head to foot, and some only have a half dozen on the face and a dozen on each wrist, hand and forearm.

The following are a few cases with their clinical history which will represent both the typical and atypical forms:

Case No. 1. V. L., girl 10 years of age. I was called Sunday evening, Dec. 31, 1899, and learned that the child was taken sick suddenly Saturday night with nausea and vomiting and soon had fever; was very restless all night. Early in the morning she had a severe pain in her stomach and slight chilling along the back. She complained of some aching and a decided fullness in her head.

On examination I found the pulse full and strong at 120 and temperature 104°. Her face was flushed, it being almost a brown color over the malar bones, and she was greatly prostrated. The pain in stomach was yet present, also the chilling and aching. I prescribed codeine to relieve the pain in stomach and gave quinine and acetanilid. I advised sponging with cool water to reduce the fever. There was no appetite and the bowels were constipated.

When I called Monday, January 1st, 1900, the little patient was resting some easier, pulse 110 and temperature 103°. She continued to vomit frequently, but the chilling had not been noticed since in the night. Her head continued to trouble her. Tuesday morning, the symptoms had continued about the same and I found the pulse 112, temperature 103°. Tuesday evening, her temperature was 103.2°, but the vomiting was not so frequent.

Wednesday morning when I called I learned that she had had a better night. Her temperature was 100.2°, and her pulse 100. She was cheerful and said she felt

like getting up. On close examination I found a red spot (macule) in the edge of the hair on forehead. By evening more red spots had appeared and the first spot had become elevated and showed a distinct papule.

Thursday morning her forehead and face had a great number of papules over them and by evening the hands, arms and body were completely covered with papules.

was fully developed. The vesicles had reached full size, being the size of a half pea or larger. Many of the vesicles on hands and face were inclined to become confluent. The vesicles were numerous occurring all over the body excepting in the dorsal region. Across the shoulders and hips the vesicles were abundant. They were very distressing, due to the pressure from lying on them which ruptured a num-



PLATE NO. 1—Mitigated smallpox. Eighth day of eruption, showing the vesico-pustular stage at its height on the hands and arms while dry brown crusts are forming on the face. This case had never been vaccinated.

The papules that were best formed, under the finger felt "shotty" just before going into the vesicular stage; but between the thumb and finger not so much so. Before the papules had fully developed on the feet the first papule seen on the forehead began to break down into a vesicle at its summit.

By Friday evening the vesicles were rapidly forming and within 36 hours this stage

ber of them leaving a raw surface. The vesicles were plentiful on the fingers and toes, palms of the hands and soles of the feet. The eruption occurred on the mucous surfaces of the nose, mouth and throat.

On Sunday morning they called me hurriedly saying the patient was having great trouble in breathing. I found the nasal cavities filled with the eruption, also the throat and upper air passages.

Several of the vesicles had dark spots in their centers giving them an umbilicated appearance, but on close examination only a few were found to be umbilicated. Of the entire number of vesicles, there was possibly one in twenty umbilicated.

About six days after the appearance of the first papules it began to turn white and then yellow forming a crust, which dropped off in four or five days. The vesicles dried quite rapidly excepting on the hands, feet and face. The vesicles of the left hand were opened and the contents squeezed out. The vesicles so treated formed umbilications whose scabs fell off more quickly than those of the vesicles of the right hand.

During the vesico-pustular stage there was an odor which was very nauseating to the patient. This was the first case I had treated or had seen after the eruption appeared. The patient was very sick and I expected a fatal tendency during the pustular stage, but at that time improvement began and recovery was rapid and uninterrupted. In this respect the disease did not meet my expectations, however, I concluded that it was a case of smallpox in a mild form.

In a few days after making the diagnosis, I received the valuable papers of Drs. Welsh and Hyde on "Mitigated Smallpox," which relieved me greatly as to the possibility of an error in diagnosis. The patient made a good recovery with only a few pock marks on face and forehead.

Case No. 2. Minnie C. Age 18. Had been complaining for about ten days. The evening of the 14th of February I called and found her complaining of severe headache, backache and sickness at stomach. The pulse was 120 and temperature 104.2°. There was great restlessness and delirium at times. An opiate was given to relieve pain and phenacetin given to reduce fever.

Feb. 15th I found very little change. The temperature was 104° the pulse 120. The headache and backache were not so severe but there was great restlessness and marked prostration.

Feb. 16th; the distressing symptoms were much improved and by evening red

spots were noticeable on face and neck. The next day the patient was able to sit up in bed, was hungry and able to eat. This was the first food taken for four days. The eruption was well marked on the face, the red spots (macules) changing into papules; but the eruption had not appeared on the lower extremities.

Feb. 22d, I saw the patient again and found the vesicles fully developed in great number; more especially on face, fingers, hands, arms, back, toes, feet and ankles. The vesicles were as large as a pea and on the face, hands and feet were confluent. At the base of each vesicle was a red areola, sore to the touch. The intervening tissue between the vesicles was greatly swollen and the eyes were almost closed. This condition continued for two or three days, then the vesico-pustules began drying and brown scabs formed on the face in places, while in other places yellow crusts were formed. The swelling about the eyes disappeared to some extent. (The appearance of the patient can be much better appreciated by Plate No. 1, which was taken the 25th of February.)

The patient did not have a marked chill at the onset of the vesico-pustular stage but there was an elevation of temperature reaching 103° and a pulse of 130. There was great prostration. She made a slow recovery with many pock marks on face and hands. There was no history of vaccination.

Case No. 3. A babe five months old. The pre-eruptive symptoms were not marked to sufficient degree to attract attention. The child was probably a little more peevish than common.

The eruption appeared slowly, going through the stages of macule, papule, vesicle and pustules, then forming a brown scab. The interesting feature of this case was the tendency of the eruption to become confluent, especially over the scalp and face. As many as a half dozen vesicles would run together so that on the scalp it appeared like a solid blister.

The pustular stage was well marked, after which brown scabs formed. I succeeded in getting a picture of the child

about the 12th day which shows fairly well the condition as seen in Plate No. 2. This was one of the worst cases I saw. The convalescence was slow due to a complication of furuncles. Several boils appeared over the child, some severe. One on the buttock large and more in the nature of a carbuncle in which the tissue sloughed out leaving a cavity about the size of a walnut.

The foregoing cases represent the more severe or typical forms of the disease as



PLATE No. 2.—Moderately severe smallpox in an unvaccinated babe five months old, twelfth day of eruption. Pustular stage was marked and dry brown scabs are forming.

observed in our epidemic. The following are some of the atypical forms:

Case No. 1. M. H. Girl age 10. She had had two unsuccessful attempts at vaccination. On Friday evening the father reported his daughter not feeling well. He said she complained of headache and some pain in her stomach. She was up part of the time. I did not call but prescribed for her. She was reported better

the next day and I expressed the opinion that she may have only taken cold. He was told to report if he observed any sign of an eruption. The following Wednesday morning an eruption was noticed on the child's hands. I called and on close examination found about a half a dozen small vesicles on each forearm and hand; one or two appeared on the palmar surface of the fingers. The vesicles ran a short course drying and disappearing within four or five days.

Only one or two pigmented spots were left after the crust dropped off. I do not think there is any question in regard to the diagnosis. There was a positive history of exposure twelve days before she was taken sick.

Case No. 2. R. S. An electrician. He had a correct history of smallpox at the age of five. His son aged nine contracted the disease, probably at school. Just as the son was beginning to show the eruption the father presented the same condition, but did not have the pre-eruptive symptoms to a marked degree. The eruption on the son continued several days, while that on the father disappeared within 48 hours, not going beyond the papular stage, there fading. (This case occurred in the practice of another physician, Dr. Matson, who gave me the account of it.)

Case No. 3. Mrs. S. About 40 years of age. Had never been vaccinated. She was regularly employed to clean my rooms. On Friday she did not come to the office. On her return the following Tuesday she said she was sick on Friday.

On inquiry she told me she had an attack of pneumonia but got medicine and "broke it up." On questioning farther she said she was taken in the night, with a chill, followed by fever, headache, sharp pain in right side (pectoral region) and a very severe pain in the back. She said these symptoms all left her on Sunday and she felt much improved. She also said that she did two big washings on Monday and was feeling well now.

I noticed several red spots on her hands and asked her when they appeared. She said she noticed them first, Sunday even-

ing. There were possibly one dozen papules on each forearm and hand. Only a few of the papules developed into vesicles.

To what extent the soap used in washing the clothes prevented the papules from developing into vesicles I cannot say.

On account of the mildness of the disease, it is not expected that many complications would arise. However, there were a few that occurred that demand attention.

cases causing much distress. Conjunctivitis and keratitis were the most common diseases. In a few cases the eye-lids were inflamed and swollen presenting an erysipelatous condition.

Furuncles were also noticed but usually as a complication during convalescence.

Pregnancy was present in two patients and each miscarried. One miscarried during the pustular stage. She had the best



PLATE NO. 3.—Mitigated smallpox, severe symptoms during the initial stage but not much distress during the eruptive stage, ninth day of eruption. Patient never vaccinated.

Bronchitis was present in a number of cases causing much distress to the patient. It generally appeared early in the course of the disease but in some instances appeared later. I had one case in which it appeared before convalescence had begun. The symptoms were very alarming but improvement began in three days and she had an uninterrupted recovery.

Eye symptoms were present in a few

marked pustular eruption of any case I saw. The other patient miscarried about two weeks after the quarantine was removed. The pregnancy had been of about four and one-half months duration. This patient was very sick during the stage of invasion; there was a temperature of 105°. The pain in lumbar region was very distressing, headache was severe and at times there was delirium. At this time there

were indications that she would miscarry, but under the influence of bromides she became quiet. At the end of the initial stage she improved and all the indications of a tendency to miscarriage disappeared. When the eruption reached its height in the vesico-pustular stage the patient had a chill followed by a temperature of 103° . The pulse was 130. There were great restlessness, pain in back and apparently uterine contractions showing indications of a miscarriage. She was given bromides to quiet her and phenacetin and quinine to reduce the temperature. She soon improved and her condition remained fairly good until a few hours before the miscarriage (which was about four weeks), when she had severe uterine contractions and a miscarriage was inevitable.

The foetus did not show more than three and one-half months development and there was some evidence of decomposition so I am of the opinion that the foetus died during the vesico-pustular stage of the disease. The eruption could be seen on the foetus, but on account of the decomposition that had taken place it was not well defined.

Diagnosis: On the appearance of the chill, followed by fever, backache, headache and irritability of the stomach, one cannot make a definite diagnosis; but such symptoms are indicative of some poison in the system and are sufficient to arouse suspicion.

In some cases where the pain is severe in the pectoral region with the temperature 104° or 105° one may suspect the onset of an attack of pneumonia, but physical examination prevents an error of this kind.

During the second and third days the condition of the nervous system and the heavy brown coat on the tongue may cause one to think it typhoid fever; but the sudden fall of temperature and the appearance of the eruption explode the typhoid idea. Of the disease with which it has been most frequently confounded, the following require consideration, viz.: varicella or chicken-pox, impetigo contagiosa and pustular syphiloderm.

Varicella: There is usually no distinct febrile stage preceding the eruption. When the eruption appears there may be slight fever, but usually the vesicles attract attention first. The eruption is generally seen as a distinct vesicle, irregular in size, and makes its appearance on parts of the body covered by clothing, more especially on the back. The vesicles are rarely ever seen on the palms of the hands, soles of the feet, fingers or toes (a distinguishing point). Varicella vesicles have an epidermic covering so delicate as to be readily broken by the finger nail, which when broken are found to contain a clear serum. They are soft and velvety to the touch. Many of them enlarge by peripheral extension to considerable circumference. The vesicles are not umbilicated except by dessication in their centres and run their course in 2 to 4 days. The crusts forming are thin, yellowish-brown and friable, and when they have fallen off red spots and occasionally scars are left. Chicken-pox is a disease confined to childhood and its contagion is not influenced by vaccination.

Variola: There is a distinct febrile stage preceding the eruption. A chill usually marks the onset of the disease, followed by high temperature, 102° to 105° , headache, backache and irritability of the stomach. These symptoms continue two to four days and then disappear, the temperature falls to about normal, the headache and backache are relieved and the stomach becomes retentive. At about this time or a few hours later the eruption can be seen on some parts of the face or forehead as a red spot (macule) then a papule and not a vesicle before 24 to 48 hours. The eruption appears frequently on the palms of the hands, soles of the feet, fingers and toes (a diagnostic point). The vesicles are regular in size, have a dense covering of epidermis, are not easily broken, firm and hard to the touch, and contain a turbid or milky fluid. They enlarge by breaking down of the papules and are frequently umbilicated early before dessication begins. A course of six to ten days is required to the formation of crusts, which are dark and

dense and when they have fallen off pigmented spots are left with a tendency to pitting. Variola is a disease that attacks children and adults equally and vaccination protects or modifies the course of the disease.

Impetigo contagiosa is a contagious disease of the skin rarely attended with fever before the eruption appears. Several vesico-papules, vesicles or vesico-pustules make their appearance simultaneously or in rapid succession upon the scalp, face or hands or upon all these parts at the same time.

The vesicles are at first small but tend to increase in size and flatten. They are superficial and as a rule without any marked areola. They are irregular in size, some being the size of a pea and others the size of a dime. The contents of the vesicles are first vesicular, later becoming sero-purulent.

The crusts which form may be either thin or thick, varying from a straw color to a greenish-yellow or a brownish color. When these crusts drop off a reddish spot is left which rapidly fades away and there is no tendency to pitting.

Fresh lesions may appear singly or in successive crops from day to day, but finally in the course of several days or weeks, new ones cease to form and the disease gradually ends.

Impetigo contagiosa is a disease most prevalent in hot weather and more frequent in families who are not cleanly and is essentially a disease of childhood.

Another disease that deserves mention is pustular syphiloderm; not that any confounded it with the recent epidemic but the appearance is much the same at first sight. A differential diagnosis will not be given as the history of such a case is sufficient to make clear the nature of the disease.

Other points in the diagnosis might be mentioned, but these few will be sufficient in most cases to make a differentiation. It would appear that a mistake would be inexcusable, but some of the cases in our epidemic were so atypical that it was not always easy to decide where they belonged.

I have only mentioned one objection that is given against the name of smallpox, viz: It being too mild a disease for smallpox.

A second objection that is given is that it is not as contagious as smallpox. During the early part of our epidemic many who had the disease were out among their friends; yet it is claimed that it did not spread rapidly, however, in less than ninety days there were about 200 cases. It was noticeable after quarantine measures were in force for ten days that the new cases reported were few, while at the beginning of the quarantine period a number were reported each day.

A third objection is that the vesicles were always unicellular and did not become umbilicated. This in part is true of our epidemic, but some few cases showed slight umbilication as may be seen in the photographs.

A fourth objection that is frequently given is in regard to the influence of vaccination. Many claim that the vaccinated are affected equally with the unvaccinated, and also that the unvaccinated escape as frequently as the vaccinated. It is true that there were a few patients from among the vaccinated. The value of vaccination is shown in my report. Out of 76 families, with over 300 members quarantined, in only one instance did an unvaccinated member escape the disease; while about 100 had a history of vaccination escaped.

Another objection is that the cases having the so-called smallpox had good results from vaccination. This was not my experience. In some cases that were vaccinated there was a lesion, but not typical of vaccinia.

The treatment during the initial stage requires medicine to relieve the most distressing symptoms. Muscular pains, such as backache and pain in the pectoral region, if severe, require an opiate; codeine usually giving satisfactory results. Quinine was usually given from the onset. In some of the first cases I gave antifebrin or some of the coal tar preparations to reduce fever and to relieve the headache, but I think one would better rely on cool

sponging to reduce the temperature and the opiates to relieve headache. The objection to the coal tar preparations is their action on the blood.

Stimulants and tonics are occasionally required, more especially during the vesicular and pustular stages of the eruption.

During the eruptive stages itching was occasionally an annoying symptom which was greatly relieved by bathing with a weak solution of carbolic acid in water. By the use of antiseptic solutions such as carbolic acid (1 to 60), or bichloride of mercury (1 to 2000) it is possible to shorten the course of the eruption.

DISCUSSION ON THE PAPER ENTITLED "HAVE WE SMALLPOX," BY DR. H. C. MITCHELL,
PAGE 112, AUGUST ISSUE.

(Unfortunately the copy of this discussion was not received until after the August issue had gone to press. Because of the importance of the subject it is inserted here.—Editor.)

DR. J. P. MATTHEWS, Carlinville: I have had under my care half a dozen cases of typical smallpox, but there have been undoubtedly some atypical cases of the disease during the recent epidemic. In some of the cases I have seen there was a wheal or urticarial nettlerash on the top of which was a little watery blister. This would last for three or four days, and then disappear, but would not leave a pit. These I regarded as atypical cases of smallpox, and yet when I saw these cases at first it was a question whether it was chickenpox. Without doubt, we have typical and atypical cases of this disease.

DR. MURRAY: I reported a typical case of smallpox to the Secretary of the State Board of Health not long since. I had the house quarantined, and immediately vaccinated two children besides the patient. The father and mother were previously vaccinated. At the end of about thirteen days the members of the family had a typical eruption; they had backache, headache, fever, etc., but there were only four spots on the face of one of the children, and on the other only one. But these were typical, and probably over the bodies of these children there were not more than twenty-five or thirty spots. The parents had probably fifteen or twenty over their bodies, but suffered from headache, backache and fever. As soon as the eruption disappeared, they got up and about.

I have had a good deal of controversy over this matter; I have not met a physician in my neighborhood who has supported me in my diagnosis.

DR. JOHN H. HOLLISTER, Chicago: I would like to ask the author of the paper, to what extent he thinks previous vaccination may have modified the severity of the disease, and perhaps

explain in some instances the mildness of the manifestations.

DR. L. R. RYAN, Galesburg: A short time before this controversy began as to whether or not we had chicken-pox or smallpox to deal with, several cases occurred in my own family. Five members of my own family were taken down with what I assumed was chicken-pox. The disease pursued such an unusual course that I was very much at sea as to what it was. I feared it was varioloid. In those cases the disease progressed exactly the same, although two of the children had been previously vaccinated, and of course the other three had not. These eruptions occurred as typical chicken-pox, but ran a course lasting almost three weeks. In fact, in two of the cases the crusts did not come off until the expiration of three weeks. There was no difference whatever in the form of the eruption in the children that had been vaccinated and those that had not been vaccinated. In two of the cases the scars were as typical as those seen in smallpox. In one case the eruptions were quite large, in the other two rather small. I could detect no difference in the symptoms of the cases that had been vaccinated, and those that had not, and I watched them three or four times a day.

DR. EDWARD BOWE, Jacksonville: I wish to say a few words in regard to the subject under discussion. That we have smallpox throughout the State is evident, but such a widespread epidemic is undoubtedly due to error in diagnosis. Why this error should occur, I cannot understand. Many of the cases are certainly atypical. A great deal has been said with reference to the positive diagnosis of the disease, the characteristic symptoms, and a specific microbe. It seems to me, that this error in diagnosis of the disease is due to one thing only, and that is that there is no positive diagnostic symptom or sign, or microbe by which we can determine smallpox. As yet, there has not been isolated any organism, any symptom, or sign that is positive of this disease. If it were possible to stop the prodromal symptoms of smallpox, and draw from the patient blood, subject it to microscopical examination, and then determine a certain organism, a positive diagnosis of smallpox might be made in the beginning.

Of two typical cases that I have seen, one was a case of confluent smallpox. If one sign or symptom in either of those cases had been present by which we could exclude other diseases, the question could be settled.

DR. J. T. MCANALLY, Carbondale: I did not expect to participate in the discussion on this paper, and I do not feel qualified to discuss the particular phase of it which has been presented by the writer. In regard to the cause of the mildness of this epidemic, I must confess that I am unable to advance any possible theory. I believe, as has been suggested in the question of Dr. Hollister, that repeated vaccinations of one generation after another through a period of years in this country have had their effect in modifying the severity of the disease. But

this is only supposition, and I know no way of proving it.

DR. N. S. DAVIS, SR., Chicago: It has seemed to me that the question of mildness has little bearing on the diagnosis. There have been mild epidemics of small pox for ages and before vaccination was known as a preventive. It was the practice many years ago to inoculate whole armies with smallpox itself, then take care of the soldiers under good hygienic regulations. This was not only the practice in the English army, but in the armies of our Revolutionary War. The preliminary work consisted of putting soldiers into camp under strict hygienic regulations and inoculating them for smallpox, or else it was feared they might be found in the midst of an epidemic of the disease during a campaign. It was found that if these men were inoculated and placed under good hygienic conditions, it resulted always in a mild form of the disease, attended with a very low mortality. The mortality did not exceed in many instances 2 per cent. So, too, where outbreaks of the disease prevail in a community that is in a good, reasonably healthful condition, the mortality is usually not large. In modern times it is comparatively small.

During the first few years of my practice, about sixty years ago, I was introduced unwittingly into an outbreak of smallpox. I got up one bright Sunday morning, and while I was at breakfast I was summoned to go hastily to a certain house. What did the mother want? Her children were sick. She was a well-known washerwoman in the town and had several children. Her house was a rendezvous for the religious of her sort of people in which there were held prayer meetings, etc., consequently it was a central resort. What did I find on that Sunday morning? I found a brood of children breaking out with smallpox. Smallpox was not known in the town since I lived in it, and that was at least three or four years. The people wondered where it came from. I had under my care, to say nothing of the rest of the people, forty cases before we got through with it, and among this number I do not think there was a death. There were only three deaths in that community. It was a rather wide community; I refer to the thriving town of Binghampton, Broome county, New York, where I then lived. But we had no question about its being smallpox. The majority of those attacked had been vaccinated in their youth. Almost every one that had been previously vaccinated, even twenty years previously, had a very mild form of the disease. There were not more than half a dozen pustules on some of the patients, and the disease in these cases ran its course rather mildly, while others would have it severely. I recall one man who had confluent smallpox, and who fell into the hands of a physician that declared it to be nothing but bilious fever. This was so far back that bleeding was practiced at that time. The case was in the formative stage of the disease; the eruption soon appeared, so that there was no doubt of our having a

genuine confluent case of smallpox. The man became so debilitated that he died before the disease reached the suppurative stage. His case was a very malignant one. If you get into a community in which there is a crowded population, where the people live under bad sanitary conditions, and refuse to be vaccinated, if you get through with an epidemic of smallpox with a small mortality, you will do what I have not found in the records of history.

DR. W. W. ESSICK, Murphysboro: Just a word or two in regard to the differential diagnosis between smallpox and chicken-pox. I have gone through epidemics of smallpox and I make my differential diagnosis in this way. In cases of smallpox, if you will take the little lump between your thumb and finger and press it, you will elicit a peculiar hard, shotty feeling. In chickenpox you will not find this. I have gone through epidemics of the two diseases at the same time; I have had cases of chickenpox in the same neighborhood where I had cases of smallpox. Whenever I had a case of smallpox I would make it a point to see whether I could elicit this hard, shotty feeling between my thumb and finger. You can invariably elicit this in smallpox, but not in chickenpox.

DR. W. F. GRINSTEAD, Cairo: I have been mixed up in this epidemic of so-called Cuban itch myself. I have been in one of the quarrels in Southern Illinois that have happened among the doctors, and I want to say that the difficulties we have had to contend with in diagnosis consist of two factors connected with the epidemic. The first is that the doctor dreads the indignation that he arouses against himself when he makes the announcement of smallpox in the neighborhood. He makes himself at once an unpopular man; he is stamped by the people and by the newspapers as a calamity howler. Other physicians will go to see these cases at the request of their friends who have personal interests that are likely to be sacrificed in case the disease is smallpox; and families are going to suffer certain privations. It takes a physician with a lot of nerve to say that this or that is a case of smallpox, when he can compare it with something else, stretch his imagination, and make it look like some other disease. The physician who calls it Cuban itch or chicken-pox will sometimes go to the newspaper office in a small town or country district and have an article written denouncing those men who have found a case or cases of smallpox and have announced them as such. I think we permit our judgment to be a little warped by our dread of this indignation. Were it not for this popular indignation on the part of the people, I believe that much less than 5 per cent. of the members of the medical profession in Illinois would be able to diagnose the epidemic at once.

DR. J. T. STEWART, Peoria: I want to say a word or two in regard to the mildness of this epidemic of smallpox. People have been wondering what could cause it to be so mild. I do not know, but it does not differ materially from

any other diseases. We have had epidemics of erysipelas years ago, from which most of those affected died. We have had other epidemics of the disease so mild that the mortality was very, very low. The same is true of epidemics of dysentery. Sometimes we have an epidemic of this disease which is so violent that many people will die in spite of any and all treatment. Then, again, we have mild forms of the disease. It is the same way with diphtheria. I have seen an epidemic of diphtheria which was so severe that the majority of children who took it died. I have seen outbreaks of the disease again with a very low mortality. Why we should have this difference I cannot say. But this same difference exists in other diseases as well as in smallpox. I am satisfied in my own mind that the present epidemic of smallpox is the genuine thing. I have seen but one case, and it was very mild. I do not see why we should think so much of an epidemic of smallpox in a mild form when the same thing occurs in other diseases. It may be due to some atmospheric condition.

DR. MITCHELL (closing the discussion): I have nothing to add, except to answer the question of Dr. Hollister, namely, to what extent was the disease modified by the action of vaccination. My experience is that the epidemic was almost entirely prevented, and in cases where it did occur, the disease was very much modified.

OUR MILK SUPPLY: SOME OBSERVATIONS AT HOME AND ABROAD.*

BY S. E. MUNSON, M. D., SPRINGFIELD.

There is not in the intelligent study of the prevention of disease a subject of greater importance than "Our Milk Supply." The accumulation of evidence that is being so rapidly added to our knowledge of impure milk, and its importance to the medical profession requires no greater emphasis than has been given this subject recently by both the lay and medical press. That even the public are becoming educated in this matter is seen in their demands for a better product and a positive knowledge that the source of their milk supply is a sufficient guarantee of its quality. That this is true is evidenced by the fact that two and three times the usual price is paid in all our large cities where

it is known the dairy or cow farm is conducted upon a sanitary and scientific plan. Already some of the dairymen are recognizing this, as is shown by the amount of money invested in many instances to produce a pure milk, free from contamination. There is need of the medical profession, who are the recognized leaders and teachers in matters pertaining to the public health, carefully studying this subject and intelligently directing the education of the people and securing needed legislation. I believe it to be of the utmost importance.

In treating this subject it is necessary to consider the milk from the time of its delivery to the conditions influencing its production. First, it is absolutely necessary to start with a healthy animal, that nature's milk laboratory will give us a supply of pure wholesome milk. Such laws as we have already regulating disease in cattle should be rigidly enforced and additional laws enacted.

In a recent number of the "Medical Record" it is stated editorially that only the State can guard against dirty milk, corrupted water supplies, impure ice, etc., nothing but medical supervision will accomplish these objects, and there are no agents so effective as physicians to spread through all classes of the community an educated sense of sanitary decency. The medical profession itself hardly recognizes as yet how great promise there is in the further study of the connections between diseases in animals and in man, connections which smallpox, scarlatina in cows, tuberculosis in men and animals, and diphtheria, already illustrate. Every physician should be a medical philanthropist and missionary, zealous to disseminate knowledge of public hygiene. The crusade against tuberculosis in cattle has done more to awaken scientific interest and investigation in this matter than all the talk and resolutions that have previously been offered. When we have practically destroyed the sources of tuberculous milk, we will have also secured a healthy animal capable of producing a pure milk. I think these are conceded facts.

*Read at the Fiftieth Annual Meeting of the Illinois State Medical Society, Springfield, May 16, 1900.

Resolutions adopted by U. S. Veter. Association, 1896:¹

1. That tuberculosis in cattle and man is identical.

2. Germs of tuberculosis appears in the milk of tubercular cows.

3. That in the tuberculin test we have a most positive means of recognizing tuberculosis in living animals, and when properly administered is harmless to healthy animals.

As to the reliability of tuberculin as a diagnostic agent, I submit the following, taken from the forthcoming report of the Board of Live Stock Commissioners of Illinois:

"There were in all 3,655 cattle tested last year, of these 560 were condemned; three that did not react typically were condemned on physical evidence and found upon post-mortem examination to be diseased. Assuming that failure to discover in the viscera or organs disclosed to view lesions of tuberculosis is evidence that tuberculosis does not exist; there were 1.6 per cent of the condemned animals not diseased. In all fairness, as stated by the Board, the number of animals that did not disclose the disease upon post-mortem examination that had reacted to the test should be reduced to five, or less than one per cent of the total condemned, which is so small a number as to be scarcely worthy of mention."

"One of the best possible demonstrations that a failure to discover microscopically the presence of tuberculosis in the carcass is not evidence that the animal is not free from disease or that tuberculosis has failed in a given case is found in the investigations with and upon milk from tuberculous cows by Professors Gehrman and Evans of the Columbus Medical Laboratory, Chicago. In both the milk and the cream in one of the cows referred to, in which no disease was discoverable on post-mortem examination, tubercle bacilli were found in abundance by the microscope. A guinea-pig inoculated with the milk of this cow, contracted tuberculosis as evidenced by microscopical examination."

Milk examined by these same gentle-

men for the Board taken from 41 cows that had reacted to the tuberculin test, tubercle bacilli were found with the microscope in the milk from fifteen cows, or 36.6 per cent. Guinea-pigs were successfully inoculated with the milk from ten of these fifteen cows, or 24.3 per cent. In the milk of one of the ten cows with which the milk was communicated to a guinea-pig, the microscope failed to disclose tubercle bacilli, so the total number in which tubercle bacilli was demonstrated to exist is 16, which is 39.02 per cent of 41, the number of milks under investigation.

CONTAGION DEMONSTRATED THROUGH MILK.

Mr. Gurler, of DeKalb, was the first dairyman in the State of Illinois to have his own cows tested with tuberculin in 1895. All of the animals reacting to the test were destroyed. His premises were thoroughly disinfected, and since that date his dairy has been conducted under strict sanitary regulations, and all animals purchased for the dairy were tested in 1896, in 1897, in 1898, and in January, 1899. After the diseased animals were all eliminated from the herd as the result of the first test, no other diseased animal was discovered upon any subsequent test, until the test of 1899, when three calves were condemned and upon post-mortem examination were found to be affected with tuberculosis. It was for some time a serious problem to account for the source of infection. During the past five years there had been no sickness in the dairy, no symptoms whatever of tuberculosis had been discovered, and there was no possible opportunity for the calves to contract the disease, no employe in whom there was any reason to suspect the existence of tuberculosis was permitted among the cattle, or upon the premises. A search for the cause of the disease discovered that a foreman had on several occasions fed these calves on milk procured from a nearby creamery, and it being the only conceivable source from which the disease could be contracted, there being no exposure through association, it is reasonable and fair to assume that the creamery was the cause of the infection. In another instance the daughter,

mother and grandmother were demonstrated to have the disease. These are only a few of the many examples that prove conclusively the contagiousness of tuberculosis.²

"It has been shown by Ostertay that there is much tuberculosis even in swine, in certain parts of Germany where they are fed upon material from creameries. And in certain parts of this country the more enterprising breeders refuse to feed their cattle upon the skimmed milk of the creameries and the slime of the separators, unless it has been sterilized."³ As yet only those who so desire have their herds tested as there is no law compelling owners to have their cattle tested, only where tuberculosis is known to exist.

It is recommended by the Board and should have the hearty support of every physician that in every instance where milk or butter therefrom is offered for sale, that the proper legal authorities shall have first passed upon the health of the herd. Dr. T. M. Legge, Secretary of the Royal Commission on Tuberculosis, 1896-98, England, says: "From a brief summary of the legislation that has been enacted by other countries, it is apparent that tuberculosis is considered a contagious disease, a dangerous disease, and a disease that can be eliminated or at least controlled. The means which farmers and dairymen can adopt under present conditions will go far to check and lessen the disease, and the means which the State can adopt will help still further to eliminate the disease. To attempt to get rid of tuberculosis without regulating the conditions under which cows are kept, where they are forced for milk production, will fail of its purpose. The way in which tuberculosis has been largely spread is through the sale and turning out to grass of cows which have been stall-fed for some years, and are badly effected with tuberculosis. After a time they improve again, and at their next calving are sold into another dairy herd, carrying the contagion with them. This can only be prevented by regulating the sale of such animals.⁴ Now that we have a

milk the next thing absolutely necessary is the proper care, feeding and stabling to produce a milk of good quality, and maintain the health of the animal. The method of milking and caring for the milk until it reaches the consumer is, I can assure you, of no less importance than the health of the cow and her proper attention. That milk may be the means of carrying and spreading other diseases than tuberculosis is a well recognized fact, such as diphtheria, typhoid fever, scarlatina, cholera, anthrax, foot and mouth disease and glanders. Outbreaks of these diseases have been traced to milk supplies, and the very high diarrhæal death-rate in children is largely due to the presence of putrefactive organisms in milk. Many recent investigators have shown that the same dangers attending the consumption of raw milk, exist in butter and cheese. Already some of our dairymen, as stated before, are endeavoring to produce a milk under sanitary and scientific conditions. Such examples as the work of Dr. Russell, of the Wisconsin Experiment Station in supplying milk to Madison and Milwaukee, and his development of pasteurized milk for infants and invalids, the work of Mr. Gurler of Dekalb, of the Clover Hill farm, and in our own city, that of W. A. Talbot of the Clover Leaf farm, are all worthy of the highest commendation. I am quite sure any physician here, will feel well paid for making a visit to this farm south of the city. I believe some of our dairymen would improve their milk did they know how to go about it, as it surely increases the demand and the value in proportion to cost of production. Some of the remedies that may be offered for these troubles after securing a healthy animal by State law, is that municipal laws be enacted regulating the sanitary conditions of stables and yards, with proper drainage and good water supply. It is not necessary to tell you just how a barn should be built, the number of square feet of floor space for each cow, etc., but the city authorities should know how the dairy should be built and conducted according to the most approved and scientific plans, and this prin-

ciple should apply the same to a herd of ten cows as a hundred. I claim it is gross negligence upon the part of city authorities to ask or expect dairymen to put into operation and maintain a dairy that will furnish pure milk without proper assistance from the city or State. You may call this assistance compulsory, but it should be given in the way of submitting approved plans for construction of barns and other buildings, so that what improvements are made by the dairymen are not incubators for bacteria, temporary in character and a waste of time and money.

The Chicago Department of Health has adopted a systematic inspection and prosecution against those offering milk for sale. "In cases where the milk has been found wanting in any particular the dealer has stopped taking milk from the farmer, thus forcing him to supply a good milk; every analysis of milk made represents a sanitary inspection of the premises, where the sample was taken, as well as an examination into the quality of the milk. Moreover special sanitary inspections are made whenever the circumstances seem to warrant."⁵ Even here in Springfield a great quantity of milk is being brought in by early trains from farms and sold by the grocerymen. The same inspection should be applied to these farms as to the dairies in the city. A milk separator is being run in a dirty, dingy room in the rear end of a grocery store, and the cream and milk sold all over the city.

At the April meeting of the Sangamon County Medical Society a committee was appointed to draft resolutions recommending such measures as will improve our milk supply.

Some of my observations while abroad led to the preparation of this paper. In some parts of Germany it is estimated that "33 1/3% of the cattle are infected with tuberculosis."⁷ One might attribute to this condition why so little milk is drank in Germany and none used for any purpose that is not first exposed to heat. Efforts are being made to stamp out this disease. Many of the large cities on the continent have already established large farms

where cows are fed and cared for in the most scientific manner. Such a farm I found at Vienna, at Rome, at Milan, at Paris, and the Walker-Gordon Laboratory established at London.

The problem of modifying cow's milk suitable for infant feeding is as much of a question for solution and difference of opinion abroad as in our own country. This is noticeable in Vienna, the home of Professor Gartner, whose well known ideas of milk modification consists practically in a graded dilution with water according to a child's age. Biedert's modification is used more than any other, even in Vienna, who as stated by Professor Cotton, "has done more than any other man in Europe to establish percentage feeding. The European idea when one is in evidence seems to be to adopt a mixture which mostly resembles mother's milk, except as to the anti-scorbutic qualities for they all employ heat, and make this do with their 1, 2, 3 and 4 variations for all the babies."⁸ I had the practical experience of using both of these modifications in a child of my own. The same objection applies to both; no attempt is made to adopt percentage feeding so that the product is made to meet the requirements of the individual case. The consequence was in my experience that constipation in the child was a constant factor; this I also attributed to the employment of heat. The milk keeps for an indefinite time without cold storage, and where it agrees with a child it is very convenient for travel.

Upon arrival in Paris, as in Italy, only Gartner's milk was recommended to me by the physicians. This was not obtained from a laboratory, but often being modified at the farm, could be bought at various shops throughout the city.

At London we were introduced to the Walker-Gordon milk by a Boston physician. I was much surprised to find that staid old London had been invaded by an American idea that was working with perfect success. They had a fine cow farm near the city, which was conducted on the same scientific plan as in our own country. The reliability of this milk, being perfectly

sanitary and modified at the laboratory for each individual case, can scarcely be appreciated only by those travelling with children and invalids. Milk is shipped to American families in various parts of Great Britain during the summer and furnished for ocean voyages, and money refunded for bottles upon landing, either in New York or London. The milk for two children during our seven days' voyage was only pasteurized and kept in cold storage and remained in good condition. The tubes were closed with antiseptic cotton. The method of closing the bottles has since been changed for travel and ocean voyages. Paraffin sealed jars are used instead. With this method it is not necessary to use heat or any preservatives. Extraordinary cleanly methods and rigid aseptic precautions have resulted in the production of a milk that is not only free from dangerous bacteria but that also keeps from two to three weeks in a sweet and palatable condition. This only illustrates what can be done with milk produced upon scientific and sanitary principles.

We found upon our arrival in New York awaiting us at our hotel a supply of milk that had been delivered the same morning from the Walker-Gordon Laboratory, using the same formula which had been ordered by mail from London a week before. Where cows are fed upon the same material and the same modification is used, one can readily appreciate such advantages, especially with a child in travel. The same great need for a milk of this kind is found in every physician's practice. A few days since a country physician told me that he experienced much trouble during the dry season of the summer, when cows fed upon weeds, rendering the milk unfit for use, and causing him to resort to various products on the market for children, as a temporary substitute. I believe it is only a question of time when every physician will be in reach of a place where milk can be prepared according to the written formula of the physician to suit each individual case, and that this milk supply will come

from cows whose food is selected for them and fed to them with scientific care.

Dr. Rotch says: "I believe that the medical treatment of the various abnormal conditions arising in infants is in the future to be largely dietetic rather than by means of drugs."⁸

Dr. Holt says: "The establishment of the milk laboratory, for which the profession is indebted to Rotch, is a great stride in advance in infant feeding (as it enables the physician to know what his patient is taking at the same time making it possible to vary any one of the constituents of the food separately, even to a fraction of a per cent).

After two years experience I have found the laboratory of great value in difficult cases of infant feeding, and it soon becomes almost as much of a necessity to the physician practicing among children as does the apothecary shop to the general practitioner."⁹

When physicians have acquired a rational knowledge of the hygiene of the mother and artificial milk therapy, there will be less and less recourse to the field of therapeutics, and there will certainly be less need of Dr. Little-pill who is called in "because his medicine is so pleasant for the children to take, and if it does no good it is sure to do no harm."

I believe we will have captured the Spion Kop of disease and relieved the besieged human race of one of its greatest enemies, when we have secured a pure and wholesome milk supply.

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2. Rept. of Board of Live Stock Commissioners of Illinois, 1900.
3. Yearbook U. S. Dept. Agriculture, 1895.
4. Rept. on Cattle Tuberculosis, 1899.
5. Rept. Chicago Dept. Health, 1897.
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8. Pediatrics.
9. Holt Diseases of Infancy and Childhood.

DISCUSSION.

DR. WELLER VAN HOOK, Chicago: I am sure that we all feel an equal amount of interest in the topic that has been presented to us, and whatever may be our special line of work, we

are all interested in the subject of tuberculosis. It seems to me, then, that it should be one of the functions of this Society to take a special interest in all methods looking towards the prevention of tuberculosis, if possible.

DR. CHARLES B. REED, Chicago: In connection with this paper I recall that some years ago a committee was appointed by the legislature of the State to investigate the matter of feeding slops and brewery grain to cattle. It was found that those cattle which were fed upon brewery grain or distillers' slops were more markedly tubercular than the cattle that had been fed in the ordinary way or with the so-called pasture food. It was found in those cases where the milk was fed to infants and young children that there was a larger proportion of infantile alimentary diseases. The report of this committee was made to the legislature at that time, with the recommendation that the practice of feeding cattle upon brewery grain and distillers' slops cease, on account of danger to the infants of the State, as well as the transmission of tuberculosis, this disease being thereby greatly increased.

DR. FRANK P. NORBURY, Jacksonville: Several years ago I had an opportunity of seeing the working of the tuberculin test in the herds of cattle belonging to State institutions at Jacksonville. The results were satisfactory indeed. As I had the pleasure and opportunity to see many post-mortem examinations of cows in which the tuberculin test was made, I was impressed with the necessity of such tests being made in various small cities where no such provision is made at present, with a view to securing a pure milk supply. It might be well for me to relate a case in this connection. A cow belonging to the herd of the State Hospital gave birth to a calf which lived but twenty-four hours. I was interested in knowing what was the cause of death, and therefore made a post-mortem examination of the calf. I found clinical evidences of tubercular infection involving the entire glandular system, with some involvement of the lung. No tests for tubercular disease were made at the time. But later the mother of the calf came under the tuberculin test, and while to all appearances she was a healthy cow, yet the test showed unmistakable evidence of tuberculosis. She was killed, and the clinical manifestations were exhibited by the veterinarians in evidence. This impresses upon us the necessity of instituting these examinations more extensively; in other words, the examinations should not be confined to State herds, but should involve all herds from large dairies that supply the milk upon which we depend.

DR. W. H. KIRBY, Chestnut: Speaking of the tuberculin test, I wish to say that the State Board of Live Stock Commissioners met with a good deal of opposition from the breeders of fine stock, and we as physicians, in looking after the health of the country, know that we encounter much opposition in connection with vaccination. I am referring more especially to

the breeders of fine stock, and I have heard several of them speak disparagingly of the tuberculin test. It is now well known that it is a good thing and something that we should back up and recommend to our State Board as physicians.

DR. EDWARD H. OCHSNER, Chicago: I have gone a little further than some of the gentlemen in regard to the milk question. I insist upon all of my patients below five years of age, if the circumstances of the parents are such that they can afford to stand the extra expense, getting milk which comes from tested herds and which has been pasteurized.

I am very glad the essayist has given Dr. Russell, of Madison, Wisconsin, due credit for the work he has done and is doing. He is at the head of the experimental farm there, and has established a bureau, in connection with which he teaches the method of testing cattle, as well as the method of pasteurizing milk. The University of Wisconsin, through its farm, is pasteurizing milk from tested cows. Of course, legislation will do something in the matter, but the important thing for the physicians of the State to do is to create a demand. If the physicians of Chicago or those of any other city will tell their patients that they must use pasteurized milk which comes from tested herds, the men who sell the milk will supply the demand. The State should appoint a commission to determine whether cows have been properly tested or not, and give the suppliers of good milk some kind of stamp, so that when we prescribe tested or pasteurized milk, our patients will get it, and the man who supplies the real article should receive the credit for so doing. I am confident that the pursuance of such a course would do more than legislation to assure the public that we are getting what we are paying for, and, at the same time, protecting the honest dealer.

DR. KATHARINE MILLER, Lincoln: I have been much pleased with the paper of Dr. Munson, and I heartily endorse the sentiments contained therein, as well as the remarks of those who have discussed the paper. I want to call attention to the fact that there are two sides to this question, but not perhaps so far as tubercular infection is concerned. I am willing to concede, as far as that is concerned, that dairymen are altogether responsible. When we come to the question of the gastro-intestinal diseases of children, it is our duty to remind our patrons that not only must they secure pure milk, but they must care for it when it is secured. I live with the family of a dairyman who delivers milk at the door of his patrons, and I often see how that milk is cared for. He is scrupulously careful, and the milk is delivered to his patrons in the best possible condition. But the hired girl comes to the door, and sometimes the mistress of the house, and brings with her an empty milk-pan which has been placed beside the fire in hot weather, which has accumulated dust, and possibly shows a rim of grease around it, and into this sort of

pan or vessel the dairyman is expected to pour milk and guarantee that it will remain pure and sweet for twenty-four hours and is fit for the child to drink. This is practically impossible, and there is no one who comes as close to this matter, and one who should speak of it, as the family physician. Let us not forget that dairymen have some rights. They should have some recognition in their efforts to supply pure and clean milk, and should have it kept clean until it is actually used by their patrons.

DR. E. J. BROWN, Decatur: There have been two kinds of milk mentioned in the paper. The essayist spoke of Mr. Gurler's farm at DeKalb. One of the gentlemen referred to pasteurized milk. Mr. Gurler does not call it pasteurized, but certified, milk. The utensils are thoroughly sterilized; the stables and stalls are absolutely clean, because I have visited them myself and know whereof I speak. There are two sets of milkers. The first milk is rejected. The first milk that is taken from the udder is not mixed with the milk that is put on the market. The general milkers come along, and this milk is immediately separated, after being taken from the cow, and remixed in proper proportion, and sealed up in sterilized bottles, and this milk will keep just as long as it will by any system of pasteurizing milk. Indeed, some of this milk has been taken on a trip to California and it has kept as long as any pasteurized milk. If the family physician mixes himself up with the tin pans kept by the hired girl, and talks about the uncleanness of the household as applied to the care of milk, he will lose a large share of his business, and I would advise some of you to be very careful about it.

DR. A. C. CORR, East St. Louis: I wish to say a few words on this subject. Reference has been made to dairy farms of national reputation. Much of the milk we use is obtained from the smaller farms, and it would be a great inconvenience to carry out the tuberculin test on these farms. Dr. Miller in her remarks referred to the importance of having the milk-pans thoroughly clean. It is very essential that the utensils into which the milk is poured should be very clean, so that the milk may be properly taken care of afterwards. The manner in which the cows are taken care of on the farm is one of great importance. Care should be taken in herding cattle together. The stables should be sufficiently large for them to live in comfortably. If the cattle are crowded too much, then we have a hot-bed for the generation of tuberculosis. Cows should be allowed to go outdoors a great deal, and not crowded together. Let them have as much sunlight as possible, and by so doing the milk will be materially improved, and we will find them less often affected with tuberculosis. The small farmers should receive suggestions from us as to how to make their milk the most acceptable to their patrons, and they should adopt means which will be the most beneficial to themselves.

DR. MUNSON (closing the discussion): In regard to pasteurized milk, following up some

of the ideas expressed in my paper, I think if there is any ideal for which we look forward to, it is aseptic milk. As I stated in my paper, under careful precautions we can produce milk which will keep from two to three weeks without any chemicals, or without any pasteurization. I am not making any argument against pasteurization, but there is no necessity for pasteurizing or boiling milk.

In regard to milk-pans, I do not believe any physician in the city of Springfield, who has a sick baby, would advise getting milk from a dairy where they delivered the milk in milk-cans, because we have reached beyond that point. It should be an absolute requirement on the part of those who care for the public to pour the milk into sterilized bottles.

In regard to the tuberculin test, I can only refer the gentleman to my paper as regards what Mr. Gurler has done on his farm. Mr. Gurler has his herds tested yearly and adopts every precaution.

With reference to the smaller farms referred to by Dr. Corr, I recall one instance in which the tuberculin test was used in the herds of what was considered one of the healthiest farms in the State. This farm was owned by a man of means, and it was found that in that farm over twenty per cent of the cows had tuberculosis. In another herd, fed on brewery food and slops, not an animal was found to be tuberculous. I should certainly recommend every sanitary precaution. But this will not stamp out the disease in a herd where it is once established.

THE ILLINOIS STATE MEDICAL SOCIETY.

PROCEEDINGS OF THE FIFTIETH ANNUAL MEETING (SEMI-CENTENNIAL)

HELD AT
SPRINGFIELD, MAY 15, 16 AND 17, 1900.

THIRD DAY—MORNING SESSION.

The Association met at 8:30 a. m., and was called to order by the President.

The President: We will now take up the report of the committee appointed at the preliminary meeting on Monday to discuss and devise plans for better organization with a view to adopting it. You will remember that we have previously adopted all of the sections of the report with the exception of Section 5, and this section was referred back to the committee to be amended.

Dr. Hall then read Section 5 of the report, as follows:

"It was moved and motion carried that the Secretary of each local society be made

an official reporter to the Illinois State Medical Journal.

"Recommendation—That the Secretary of each local medical society in Illinois be made an official reporter to the State Medical Journal."

On motion, this section was adopted.

It was then moved that the report be adopted as a whole, which was seconded and carried.

The Secretary: I have received a letter, dated April 2d, 1900, from the Wayne County Medical Society at Detroit, the substance of which is that this Society through a committee appointed by it has originated a movement urging the establishment of interstate reciprocity, especially between those states whose laws are such as to require an examination for a license to practice medicine, so that if one chooses to change from one State to another, he can do so without being subjected to an examination. This movement has been reciprocated by almost all of the States except that of Illinois. The Illinois State Board of Health has recognized this condition and has adopted a resolution recognizing the licenses of various States, which should receive the endorsement of this Society by a formal vote.

Dr. Hall: I move that we concur in the movement undertaken by the Wayne County Medical Society, and that we endorse the action of the State Board of Health of Illinois relative to accepting candidates for registration who have qualified in other States with equal requirements. Seconded and carried.

The Secretary read the report of the Nominating Committee, which recommended the names of members for the various offices and the next place of meeting.

Dr. Harold N. Moyer: I have a personal request to make, namely, that my name be withdrawn from the Committee on Medical Legislation. The committee is a small one. I believe it would be wise to get new blood on the committee, and not men who have been at the work for several years. I would make the suggestion that the name of Dr. E. Fletcher Ingals be substituted for mine.

Dr. E. W. Weis: I move, Mr. President, that the name of Dr. E. Fletcher Ingals be substituted for that of Dr. Moyer on the Committee on Medical Legislation. Seconded and carried.

Dr. L. R. Ryan: I now move that the report of the Nominating Committee be adopted as a whole. Seconded and carried.

Dr. E. P. Bartlett: I think it would be well to discuss the question of place of meeting of this Society. The Nominating Committee named Peoria as the place of meeting for next year. For the past six years this Society has been upon wheels, so to speak, moving from one place to another, and it is not to its best interests. It seems to me, that this Society with its prestige as a State institution should consider a business proposition as to the future of the Society. The old adage, that "a rolling stone gathers no moss" has been exemplified in this Society, moving from one place to another much to its financial injury. Whenever the meeting has been held at Springfield, the Society has prospered; the attendance has been larger than at any other point, or it has been as good as at any other place where its meetings have been held. While a permanent place of meeting for the Society would involve a considerable amount of work for the local profession, there are a large number of physicians in this city who are ever ready to do that work. The city of Springfield has a large number of physicians who are always ready to devote their time to advance the interests of this State Society. I simply bring this matter before you for consideration, so that you may in the future look to the interests of the Society by locating it at the Capital of the State. Springfield is the center of the State, as near as it can be, and I hope you will consider its railroad advantages. The history of the meetings here has been such that you may well consider the financial interests of the Society by locating permanently at this place.

I believe medical legislation could be furthered by the Society meeting here. The report made this year shows what has been accomplished in the inter-

ests of the Society, and I believe that with the present growth of the Society it could well arrange to meet here regularly, where a building can always be had that will accommodate the exhibitors to advantage, who are an important part of the income of the Society. I would suggest that a motion be made in order to put the matter in proper shape for discussion. If no one else is willing to make such a motion, I will move, Mr. President, that the State Society favors Springfield as the permanent place for holding its meetings.

The President: The chair rules that this motion is out of order at this time, for the reason that the report of the Nominating Committee has been adopted, and its adoption carried with it the place of meeting. Of course, Dr. Bartlett can make a separate and distinct motion to that effect, if he desires.

Dr. Bartlett: I will renew my motion, Mr. President, that the State Society consider the feasibility of locating permanently at Springfield. Seconded.

Dr. C. W. Hall: This is a matter of great importance. It is hardly a fit time to consider it. I therefore move, as an amendment, that this matter be referred to a committee of three to report at the next annual meeting. Seconded.

Dr. Bartlett: I accept the amendment.

Dr. Denslow Lewis: The by-laws provide for the meeting of the Society, and I think any by-law can be changed at any annual meeting by a three-fourths vote of the members present.

The Secretary: This is an old revised by-law. In 1892, I think, the section was proposed, that the place of meeting shall be determined by vote of the Society; and then there is a provision to the effect that every second meeting shall be held at Springfield to correspond with the biennial sessions of the legislature. That portion relating to meeting at Springfield every two years was repealed two or three years ago. The meetings prior to that time were held every second year at Springfield, and proved so unsatisfactory that this section of the by-laws was repealed.

Dr. Bartlett: The only reason I have

for making this motion at this time is to elicit some discussion in regard to the advisability of making this change.

The President: The Chair rules that the point of order made by Dr. Lewis is not well taken. He holds that the motion before the house is to appoint a committee to whom this subject can be referred, that we cannot vote directly upon the subject at this time, but that the motion to refer the matter to a committee is properly before us, this committee to report at our next annual meeting.

Dr. A. C. Corr: I have no disposition to prolong the discussion. We have been over this ground before, and it was decided by motion that the Society shall meet at Springfield every second year.

Dr. L. R. Ryan: I move that this whole matter be laid upon the table, because it is impossible to reach any definite conclusions regarding it. Seconded and carried.

Dr. A. C. Corr, of East St. Louis, offered the following preamble and resolution:

Whereas, It must be patent to the mind of everyone at all familiar with the subject, that the practice of medicine is rapidly running into premature specialism by the frequent occurrence of students or physicians just out of an ordinary course in college espousing specialism without any considerable experience in previous general practice, so necessary to acquire an ability in differential diagnosis, so necessary to discriminate between diseases; therefore, be it

Resolved, That it is the sense of this Society, after fifty years of observation and experience, that no one ought to deport him or herself as a specialist, or express in the usual way a desire to limit his or her practice to a specialty without having practiced and studied general medicine as a general practitioner should for at least ten years.

Dr. L. C. Corr moved the adoption of the resolution. Seconded.

After some discussion, which was participated in by Drs. Goodell, Webster, L. C. Corr and A. C. Corr, it was moved that the resolution be laid upon the table. Seconded and carried.

In accordance with Article IX of the

Constitution, Dr. D. Lewis offered the following amendment to the Constitution:

Article IV shall be amended to read as follows: "And the councillors who shall be the retiring president and his eight immediate predecessors." (To lie over for one year.)

Dr. J. W. Pettit offered the following preamble and resolution:

Whereas, Satisfactory meetings and the dignity of the Society demand that whatever work is presented to the Society shall be carefully prepared, and that our printed programs shall be systematically carried out; therefore, be it

Resolved, That the Executive Committee for the coming year be instructed to insist upon the following regulations:

1. No paper shall be presented to this Society which is not entitled to a place on the program.

2. No paper shall be placed upon the program unless a carefully prepared abstract of the same shall have been placed in the hands of the Secretary at least thirty days before the date of the annual meeting.

3. The program shall contain a concise statement of the special features of any paper to be presented, so that members may know what they may expect to hear at the meeting and may come prepared for concise and careful discussion.

4. The Chairmen of the Sections, with the advice of the Executive Committee, shall limit the number of papers to correspond to the time allowed for their hearing, so that all papers that appear on the program may receive the careful consideration of the Society, and members may know as nearly as possible at what hour any particular paper is to be presented.

After reading the preamble and resolution, Dr. Pettit said: In presenting this resolution, I desire to say that it is in line with the work done by the best societies, like the Chicago Medical and other societies of that class. Under our present laws, our program is largely a matter of chance. The secretary finds it literally impossible to limit the number of papers. In other words, there is no system nor symmetry about the program. Gentlemen get tired

in coming here to listen to certain subjects that are discussed to the exclusion of those that are interesting and pressing. This resolution gives the Executive Committee exclusive control of the program, and I am sure it will result in getting more interesting and instructive papers than we have had in the past. That is the object of the resolution. Whether the details, as arranged in this resolution, are right, I do not pretend to say. I do not present this resolution as the result of my own investigation, or simply as an expression of my own opinion, but as the result of a discussion by a large number of gentlemen who met by chance and talked this matter over and generally agreed that something ought to be done along this line.

Dr. C. B. Johnson: I move the adoption of the resolution. Seconded.

Dr. A. C. Corr: I am very glad that Dr. Pettit has brought this matter up. It would be well, in getting up future programs, to see that a paper which rightfully belongs to one section shall not be admitted to a place in another section. Papers should be properly classified and assigned to the right sections.

Dr. N. S. Davis: There seems to me to be one defect in this arrangement. There ought to be a clause incorporated to take care of those who promise papers and who do not read them.

Dr. A. I. Bouffleur: I would object to the thirty-day limit with reference to furnishing an abstract of a paper to the Secretary. Possibly there are some who would be able to furnish these abstracts, but it is impossible for others. As the matter of the program is not placed in the hands of the printer thirty days before the meeting, or, as a rule, not more than ten days preceding the meeting, the placing of such a long time limit for furnishing abstracts would seem entirely unnecessary. I therefore move, that the resolution be amended so as to make the time limit for furnishing abstracts of papers fifteen days instead of thirty days. Seconded.

The original resolution as offered and amended was adopted.

Continued next month.

The Illinois Medical Journal

PUBLISHED MONTHLY.

Official Organ of the Illinois State Medical Society.

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The Society does not assume responsibility for any statements or opinions published in this journal.

Entered at the Postoffice at Springfield, Ill., as second-class matter.

Springfield, Ill., September, 1900.

ORGANIZATION OF COUNTY MEDICAL SOCIETIES.

Particular attention is called to the valuable report of the committee on Medical Societies which appears in this issue. Members will assist greatly in this work if they will read the report and at once communicate to the committee any suggestions they may have concerning the appeal or the model constitution and by-laws which are suggested. This should be done promptly as the report will be issued in pamphlet form ten days after the Journal is issued.

COMMITTEE ON PATHOLOGICAL EXHIBIT.

Members who have attended the Columbus and Atlantic City meetings of the American Medical Association will all agree that one of the most attractive features has been the pathological exhibition. The Indiana State Society was the pioneer in this work which has been maintained for several years. There is no good reason why this feature should not be adopted by our Society, especially as we have members who are willing to undertake the necessary labor. I have therefore appointed

a provisional committee on pathology, the chairman being Maximilian Herzog of Chicago, and the secretary, E. M. Sutton of Peoria. Members will please take notice and bring pathological specimens properly mounted to the next meeting. They should inform the officers previously of the specimens they expect to present. These officers will doubtless solicit specimens from those persons known to have collections, but every member of the Society should lend assistance to this interesting and profitable work.

G. N. Kreider,
President.

SMALLPOX AGAIN.

Notwithstanding the wide circulation given to the articles of Drs. Welsh and Hyde and the discussions printed in this Journal it appears that not a few members of the profession are to be found on the wrong side when their communities are invaded by the prevailing epidemic of mild smallpox. Why this obstinacy exists is more than we can understand. Why any member of the profession should take the responsibility after all that has been said and written on the subject of creating new names for this disease or denying its existence is astonishing. In vain do men of wide experience relate the numerous epidemics of smallpox in the past, which have shown a mortality rate equally as low as this. In vain do they point out the fact that every other disease with which we are acquainted show degrees of mildness or virulency equally as remarkable as does smallpox. In vain is it pointed out by competent observers that in their communities, only the unvaccinated contract the disease. See statement of Dr. C. V. Champion of Mansfield and Dr. E. H. Graves of Bement in the paper of Dr.

Wilkinson in this issue. Nothing so far published seems conclusive enough to influence these new medical authorities. One of the latest authorities, a health officer in a central Illinois city, graduated in 1896, says the epidemic is "Cuban itch" but has quarantined all the cases. The epidemic at Monticello described by Dr. Wilkinson had its origin in Dixon where an equally absurd state of affairs existed for a great length of time and the dictum of one of the highest medical authorities and of the State Board of Health was disputed. Physicians who deliberately close their eyes to the facts are in a certain sense responsible for its spread. As long as it remains mild the responsibility is not great but should it take on a virulent form this responsibility would become criminal.

Osler says that the most deadly of all modern epidemics of smallpox—that of Montreal in 1885, in which 3,164 persons perished in nine months—was caused by a case of supposed chicken pox which was not isolated. The excellent article and discussion on smallpox in this issue should be read by every practitioner in the state. It is an excellent supplement to the exhaustive reports of Drs. Welsh and Hyde. In Springfield there have been no less than six outbreaks of the mild disease in the past year, but by prompt isolation, vaccination and revaccination they have been confined to the original foci. K.

CHICAGO DIPLOMA MILLS ABOLISHED.

The decision of General Tyner, Assistant Attorney General of the Post Office Department at Washington, that the accumulated mail of the Metropolitan Medical College shall be opened and that all letters pertaining to the issuance of di-

plomas and the money accompanying them should be returned to the correspondents, seems to be the last blow necessary to the suppression of this and other like disgraceful institutions.

The decision upholds the action of the Federal authorities in raiding the Metropolitan Medical college rooms, in the People's Institute building, on the West Side on June 5 last, and holding the members of the alleged faculty to trial in the Federal courts charged with using the mails to defraud.

The prosecution will now be pushed by the Federal authorities, who predict it will end in driving from Chicago the "fake" educational institutions which have been doing a flourish business for years issuing diplomas to practice professions for sums ranging from \$5 to \$100.

The State Board of Health first took up the fight against the "fake" medical colleges, which were issuing diplomas to people all over the world. Many complaints were received by the board, the British consul, acting for men in Scotland, being one of those who protested against the existence of the institutions. For over five years the State Board has sought to suppress them. The State laws being taxed, the Board would no sooner get an institution suppressed by revoking its charter than it would procure a charter under another name and resume business.

The post office authorities were appealed to, and readily agreed to stop the offenders from using the mails. It was thus expected to kill their business, as they depend on correspondence for their victims. The Metropolitan Medical college is an old offender. Under the successive names of the Independent Medical college and the Illinois Health university it was sup-

pressed by the State Board of Health, only to appear again under a new name.

Inspector Gould of the post office secret service gathered the evidence against the "fake" institution. He applied for a diploma, attended alleged lectures for three days, and obtained the evidence on which the raid of June 5 was made. Four alleged professors and twenty students were captured and plenty of witnesses were secured.

The names of the officers of the "mill," who are now under bond awaiting trial, are: James Armstrong, president; Thomas Armstrong, Charles M. Hovey, secretary, and J. H. Randall, who claims to be a doctor. Pending their trial their mail has been held by the post office authorities, and it is this mail that the assistant attorney general has decided shall be opened and returned to the writers. K.

Correspondence.

Aug. 14, 1900.

To the Editor, Illinois Medical Journal.

I noticed in the current issue of the Journal an editorial respecting the late Dr. Rudolphus Rouse, from which it is possible to draw an erroneous inference. The manner of statement is such as to cast a doubt on the accuracy of your information regarding the Doctor's position as surgeon in the American Army during the second war with Great Britain, commonly known as the "War of 1812." Such an inference is of course quite legitimate under the circumstances of his comparative youthfulness, but the writer is able to testify that the Doctor did really serve in the capacity claimed, as he has himself had the privilege of inspecting the discharge papers issued during that period, and accompanied by the hearty commendations of the commanding officer for skill and efficiency.

Sincerely,

O. B. Will.

NOTE.—There was no disposition to

doubt the accuracy of the information furnished regarding the age of Dr. Rouse. It is certainly to his great credit that he should have received the appointment of army surgeon before he had reached the age of twenty-one years. Conditions prevailing at the beginning of the century made it possible, and it is a noteworthy historical fact.

Editor.

A COMPLICATED CASE FROM PRACTICE.

J. M. G. Carter, M. D., Sc. D., Ph. D., Waukegan.

I. R., age 60, had been ailing for two years. His statement was sufficiently clear in regard to the beginning of his sickness. Severe cutting pain in the region of the stomach was the first symptom. It was soon accompanied by deathly paleness, nausea and vomiting. The pain came on suddenly and left, after an hour or two, just as suddenly. An interval of weeks of splendid health was enjoyed before another attack, with similar symptoms but more prolonged, was experienced. As the attacks grew more frequent and the symptoms more severe additional manifestations were observed. The pain radiated in different directions, but usually to the back and over the region of the liver. The tongue was coated with a yellowish-white fur. The skin became sallow, less transparent, dry and harsh. The hair and finger nails had not their usual appearance. A degree of soreness was felt over the region of the liver, especially just to the right of the median line in front at the edge of the ribs. When the seizures of pain were more prolonged reaching many hours or a day or two, the patient remembered that the skin and conjunctivæ became dull, perhaps tinged with yellow. Medical opinions from various individuals, some of whom prescribed for him and some of whom saw him only in the intervals of comfort, attributed his suffering to abscess of the liver, catarrh of the stomach, kidney trouble, gall-stones and cancer of the liver. As time wore on he was compelled at times to leave his work for a few weeks. His work was rather confining. He was an employe in the post office in Chicago, and was engaged at a desk constantly.

The tenderness in the right side increased and although he was able to work for a year and a half, after the beginning of his trouble, the continued soreness and pain became so much worse at times that he was compelled to remain at home or seek relief at some of the springs or bathing stations. Even the physicians who attended him during the periods of exacerbation of his sufferings did not agree as to the character of his malady.

I was called to see the patient in December, 1899.

Objective Symptoms: The temperature was normal, pulse 80; the tongue was coated, yellowish-white; stomach and bowels tender upon pressure, and both distended with gas. Borborygmi prominent. Tenderness was marked at the waist line, girdling the body, but especially noticed over the right hypochondrium. The patient had lost flesh, but was not emaciated. The abdominal walls were thick so that no satisfactory evidence of a tumor or a distended gall bladder could be elicited by palpation or percussion; but deep pressure, made over the stomach, liver or kidneys, caused pain. The finger nails were pale, almost whitish, with no color reaction upon pressure. The hair was dry and lifeless. The mucous membrane was anæmic and thin. The skin was pale, sallow and tinged yellowish. The conjunctivæ were whitish, clear, scarcely tinged yellow. There was no œdema of abdomen, eyelids or extremities. Nothing to aid in forming a diagnosis could be obtained by auscultation. There was slight anæmic murmur, and the heart's action was somewhat nervous, the heart accelerated. Otherwise the heart appeared to be normal. The lungs were in good condition except a little moistness of vesicular sounds. The urine showed the presence of bile, the specific gravity was 1014, but there was no other abnormality. The bowels were constipated. Scybala were common in the feces. The color varied; sometimes grayish, sometimes dark or brownish; seldom clay colored. Gall stones had not been seen.

Subjective Symptoms: The principal distress was pain girdling the body at the

waist line. The pain was constant, with occasional exacerbations. The most painful spot was in the right mammillary line at the margin of the ribs. The next most painful point was over the region of the left kidney. Tenderness was observed entirely around the body, but the most marked over the liver in front and over the kidneys at the back. Tenderness could be elicited at any point just mentioned and over the stomach and bowels by deep pressure. The patient complained of shortness of breath. As the case progressed dyspnœa upon slight exertion became marked. The appetite was impaired. The eructation of gas was frequent and disagreeable. The gaseous distention of the stomach and bowels was the cause of considerable annoyance, and was sometimes the cause of vomiting. Headache and dizziness were frequent. Specks floated across the field of vision from time to time.

Progress of the Case: Under treatment the pain in the right hypochondriac region disappeared; and the tenderness became less marked. The most persistent pain was at the left of the spinal column involving an area of three inches extending from the bed of the left kidney toward the vertebral column. The severity of the pain in this region never subsided except for a brief time, occasionally. The anæmic condition was somewhat improved and the pink color returned to the finger nails. The strength of the patient increased a little and the bowels for a time became more regular, while the gaseous distention was less troublesome.

Upon the whole, however, the patient lost ground. There were frequent exacerbations of the symptoms, and after each such experience his average condition was lower than it had been before. Eventually œdema of the feet and ankles supervened and the dyspnœa became more distressing. Still there was no evidence of heart complication. Emaciation at last became extreme and then the elongated gall bladder could be easily detected extending nearly to the crest of the ilium, and a tumor behind the stomach was discovered. The case then progressed rapidly downward until

death relieved his sufferings June 3, 1900.

Autopsy: Eight hours after the death of the patient post-mortem examination revealed the following facts: The lungs were normal except being anæmic and rather darker than usual. The heart was normal except that a large accumulation of fat filled the largely dilated right auricle. The spleen and liver were normal in size, but the liver was almost purplish in color. The gall bladder was seven inches long extending toward the right and attached at its middle to the right lobe of the liver for a distance of two inches. Its diameter was two and a half inches near the fundus. It contained two ounces of bile and one hundred and fifty-seven (157) gall stones varying in size from that of a large pin's head to a large hazel nut (1/15 to 1/2 inch). The stomach was enlarged to twice its normal capacity and stained yellowish. The pancreas was a mass of cancerous growth. Each kidney was enlarged and contained cancerous nodules in the pelvis. The solar plexus and mesentery were the seat of a large cancerous mass four by six inches in size. The intestine was bound down and the portion involved was constricted, so that the aperture of the canal was very small.

This case was one of great interest because of the difficulty of diagnosis, notwithstanding the definiteness of some of the symptoms. The autopsy shows that there was such a complication of morbid processes that mistakes in diagnosis were excusable.

COMMITTEE REPORT.

SOME POINTERS CONCERNING THE ORGANIZATION OF MEDICAL SOCIETIES.

1. Three or four can organize a society as well as twenty. Some of our best societies were organized with less than five at the preliminary meeting.

2. Any doctor willing to sacrifice a little time and patience can get three or four others to assist him in organizing. So it depends on a few to see that each county has an organization.

3. Most of the feeling or lack of harmony between doctors comes from ignorance. Knowing each other better always promotes fraternal feelings. If for no other reason than to promote friendly relations each county should have an organization.

4. More benefit will be derived from a county society than from a State or National society.

5. Two good meetings annually are better than twelve poor ones. Don't have too many meetings. Interest wanes with numerous meetings. Remember some have other societies to attend.

6. A doctor who does not stand by his profession at home, is not recognized and should not be recognized by the profession away from home. If you know of a doctor who fails to unite with and support his county organization and who belongs to a district State or National Medical Society, let us know it.

7. Should circumstances be such that a society for scientific purposes cannot be maintained in each county, organize one for political purposes. Make the officers the county central committee so to speak.

8. Don't turn the cold shoulder on the honorable irregulars. Our rights are theirs and theirs ours. Generally they are good fellows. Ask them to associate with you making them social members, and giving them all the privileges except voting and holding office.

GENERAL DIRECTIONS.

Please call upon or write to a few physicians who will assist in organizing and will support a county medical organization. The more the better, but many are not necessary. With a few meet at a preliminary meeting, look over the field and select the officers. Scatter them around so all the county will be represented. Yet "Do not cast your pearls before swine." Let the secretary be one who is really interested in society work. At this meeting select two committees, one on constitution and by-laws and one on membership. Adjourn for the first regular meeting, which should be in about two weeks. In

the meantime the committee on constitution can draft their work and be ready to report at the regular meeting. The committee on membership can hustle for members and have all the regular physicians in the county asking membership at this regular meeting. Should there be honorable homeopaths and eclectics invite them to unite, only they cannot vote and hold office. Make them associate or social members. This matter, as many others, is merely a suggestion; each society is the judge of its membership.

Don't forget the weak brother or even the erring one. Get him in and strengthen his foundation and a good structure may result instead of what you now have. That is one of the many laudable things about this work. By perfect organization and harmony the whole profession can be elevated.

Do not try to have an elaborate program for first meeting. Meet, adopt a constitution and get acquainted and enough has been done. Let the secretary get promises for papers, for if he lets the medical eels slip away he may find it hard at times to get responses to his letters. Do not have too many meetings. This is an error too often made. Some good things get nauseating if one gets it too often.

It is well to have a permanent meeting place if one equally convenient to all physicians of the county can be agreed on.

As we are always asked about a constitution we herewith send a synopsis, which may be added to or changed to suit local conditions:

SYNOPSIS OF CONSTITUTION.

PREAMBLE.

Desirous of producing a better professional and social feeling among practitioners of the regular science of medicine, we the practitioners of medicine of _____ county, do ordain and establish the following constitution, by-laws and rules of order by which we are to be governed.

CONSTITUTION.

ARTICLE I.

This Society shall be known as the _____ County Medical Society.

ARTICLE II.

Sec. 1. Any physician who is a graduate of a regular college of medicine, recognized as such, or who practices under the "20 year act" and has been recognized by the State Board of Health and has been granted a license by our State Board of Health and who is in good moral and professional standing in the community in which he resides may be eligible to membership.

Sec. 2. Every application for membership must be in writing, giving place and year of graduation and the date of license from State Board of Health, and accompanied with the annual dues. Same application shall be referred to the board of censors who shall pass and report upon the eligibility of the applicant. Then the Society shall approve or otherwise dispose of the report. If rejected the fee shall be returned to the applicant.

Sec. 3. Honorary members may be admitted by unanimous vote, but they shall neither vote nor hold office.

Sec. 4. Physicians in good standing who may be present at any meeting of this Society may be invited by the vote of the members present to participate in the exercises of the meeting. This act only applies to that meeting.

Sec. 5. Any member of this Society may terminate his membership by writing, if not present in person, on application over his own signature at any regular meeting: Provided, that no charges of unprofessional conduct appear against him and a majority of the members present unite in granting the application.

Sec. 6. Any physician, not regular, who is licensed by the Illinois State Board of Health, may be made an associate or social member of this Society without the right to vote or hold office, by the unanimous consent of members present at any regular session.

ARTICLE III.

Sec. 1. The officers of this Society shall consist of a president, vice president, secretary, treasurer and a board of censors.

Sec. 2. All officers shall be selected

separately by ballot at the first regular annual meeting and shall enter upon their duties at the close of the meeting at which they were elected.

ARTICLE IV.

Sec. 1. The president shall perform the duties of a presiding officer, enforce the laws and regulations of the Society. Make all appointments not otherwise provided for, and at the expiration of his term of office he shall deliver or cause to be delivered an address before this Society.

Sec. 2. The vice president in the absence of the president shall preside and discharge all the other duties incumbent upon the office of President.

Sec. 3. The secretary shall keep and report the proceedings of each meeting, file and preserve all documents belonging to the Society. Shall prepare the program for all regular meetings. He shall keep a full record of membership, including facts concerning each member necessary to form a brief but complete history. He shall report all suspensions and expulsions to the secretary of the district and State Society. For these services he shall receive the sum of \$—— for each meeting.

Sec. 4. The treasurer shall take charge of all funds and property of the Society, keep a true and complete record thereof and render annually a full account of same.

Sec. 5. The board of censors shall consider and pass upon all applications for membership, and report their recommendations to the Society for its further action. They shall in like manner dispose of all moral or professional violations of law or ethics or other matters when properly referred to them.

ARTICLE V.

Sec. 1. The regular meetings of this Society shall be held semi-annually on the second Tuesday of May and October at such place as shall have been selected by vote of the members present at the previous regular meeting.

Sec. 2. The president and secretary shall have power to call special meetings when required and to determine the location of holding the annual meeting when-

ever there exists a failure to select a place as provided in Sec. 1 of this article.

ARTICLE VI.

Sec. 1. Any officer and member of a committee willfully neglecting his duty or found incompetent may be removed by a two-thirds majority vote of members present at a regular meeting.

Sec. 2. Any member intentionally violating any of the laws, rules and regulations of this Society may be suspended or expelled by a two-thirds majority vote of the members present at any regular meeting at which such violation has been made or following the time of such violation should it occur during the interval between sessions.

Sec. 3. Any member violating the code of ethics or guilty of unprofessional conduct, and upon whom written charges thereof have been served at least three months previously may by a two-thirds majority vote of the members present be suspended or expelled at the succeeding regular meeting. Any member suspended or expelled under this act may take an appeal to the Illinois State Medical Society. Any member losing membership in a local society ipso facto loses membership in the State Medical Society.

BY-LAWS.

1. Five members shall be necessary to constitute a quorum for the transaction of business at any regular or official meeting.

2. The president-elect shall appoint at any regular meeting a committee on arrangements for the next regular meeting.

3. The president shall appoint a committee on necrology whenever occasion may require.

4. The president may appoint any special committee whenever necessary for any special work.

5. The president elect shall appoint delegates and the secretary furnish credentials to duly accredited delegates to district and State Medical Societies.

6. The annual dues are —— per annum. An extra assessment may be made if necessary.

7. Unless otherwise specified, a majority vote will decide any question before the Society.

8. Alterations or amendments to any part of the constitution, by-laws or rules of order of this Society may be made by a two-thirds majority vote of members present at any regular meeting, provided the amendment has been submitted in writing at a previous regular meeting.

RULES OF ORDER.

1. The deliberations of this Society shall be governed by parliamentary usages and the professional relations of its members by the code of ethics of the American Medical Association; each having due respect for the feeling and opinions of others.

2. All subjects when considered and treated as such must, when possible, be reduced to writing and after presentation becomes the property of this Society.

3. No more than 30 minutes shall be allowed for the presentation of any single report, paper or topic.

4. All topics presented before the Society may be freely discussed by the members present, subject only to such restrictions as to time as may be necessary for other papers, business, etc.

5. Notice of each regular meeting shall be issued to the members by the secretary at least two weeks prior to the date of meeting, giving date, place and hour of holding the same, naming all committees and giving the expected program.

6. Order of Business: Call to order, roll call, reading minutes, address by president, consideration of applications for membership, reports of committees, secretary's general report, treasurer's report, papers, new or unfinished business, adjournment.

7. These rules of order may be altered or suspended at any regular meeting of the Society by a two-thirds majority vote of members present. Such alteration to continue in force only to the close of such meeting.

This is sent by the Committee on Medi-

cal Societies only as a help. Many changes are necessary to suit local conditions. Much may be added and much may be omitted. If any member of the committee can be of any use, write us. We are anxious that the profession should be organized in every county in our State and we expect to sacrifice time and some money for that end.

Truly yours,

C. W. Hall, Kewanee.

J. A. Baughman, Neoga.

E. P. Raab, Belleville.

County and District Societies.

The DeWitt County Medical Society met in quarterly session in the Court House July 10th, J. M. Wilcox, President, in the chair. Minutes of last meeting read and approved. This being an adjourned meeting from the annual, the Society proceeded to elect officers for the ensuing year, with the following result: A. E. Campbell, President, Clinton; C. C. McMackin, Vice President, Weldon; J. C. Myers, Secretary and Treasurer, Clinton; J. H. Tyler, J. M. Wilcox and McLean Hallsville, Censors.

J. A. Davis, of Farmer City, and Edmonson, of Clinton, applied for admission into the Society, and on the recommendation of the censors were admitted to membership.

C. C. McMackin reported a case resulting from a scratch on the finger in which the whole arm became septic, and the successful treatment of the same, which peculiar case elicited quite a discussion in which all the members present took part. J. M. Wright discoursed upon what he regarded as the best method of puncturing the bladder in case of retained urine, caused by enlarged prostate gland. On motion the Society adjourned to meet the second Tuesday in October next.

John H. Tyler.

The Jo Daviess County Medical Society held its second quarterly meeting in the offices of H. T. Godfrey, Galena, July 25, 1900.

The morning session was presided over by H. T. Godfrey, with the following members present: T. J. Stafford, C. H. Kenegy, I. C. Smith, G. M. Tyrrell, G. E. Miller, A. F. Bucknam, U. S. G. Keller, H. F. Gunn, A. C. Phillips, H. M. Fowler, Wm. Hutton, D. G. Smith, M. H. Cleary, W. A. Smith, J. C. Egan, E. M. Beuch, G. N. Jeffers, (student), J. C. Hancock, Dubuque, Iowa.

Report of Wm. Hutton, delegate to the State Society, in which he presented some

valuable points culled from this meeting, especially concerning medical legislation.

T. J. Stafford reported the name of Diamond Dick, (Geo. B. McClellen) as one of the medical impostors which infest this county.

The following resolutions were presented and adopted at this meeting:

Resolved, That the Jo Daviess County Medical Society in session this 25th day of July, 1900, recognize and thank Mr. John Sughrone, editor of the "Stockton Herald," for his honorable course in refusing to publish advertising matter for irregular and unlawful practitioners.

Dr. A. F. Bucknam, of Warren, then read a very able paper on the "Third Stage of Labor," which brought out many interesting and valuable discussions by Drs. Hutton, Godfrey, Gunn, Smith, D. G., Cleary, Phillips, Smith, W. A., Stafford. At this point the morning session closed, and Dr. Godfrey, the president, announced that all members and visitors were invited to dine with him at the Hotel Grant, at 1:30 o'clock, after which the Society work would again be resumed.

After an elaborate dinner to which all did ample justice the following toasts were listened to:

Our Brethren, the Dentists, P. Kittoe, D. D. S.

The Country Doctor, Dr. A. C. Phillips.

Our Friends of the Bar, James M. Sheean, Esq.

The Army Surgeon, Dr. A. F. Bucknam.

The Honorable Court, Judge J. S. Baume.

The Medical Traveling Man, Charles Chapin.

The after-dinner session was called at 4 o'clock and Dr. J. C. Hancock, of Dubuque, Iowa, read a very interesting paper on, "Laboratory Aids in Diagnosis and Treatment," which was discussed with interest. The balance of the prepared programme was held over for the next meeting to be held at Stockton, Oct. 25, 1900.

D. G. Smith,
Secretary.

The Brainard District Medical Society, met at the Hotel Smoot in Petersburg, July 26. Vice President Hurst occupied the chair. Those present during the sessions were Drs. Black, Cargill, Coppel, Eldridge, Holmes, Hurst, Kreider, Miller, Munson, J. W. Newcomer, Irving Newcomer, Ryan, Stone, Tuttle, Walker, Whitley and Rothert.

Routine business was transacted. Drs. Cargill and Newcomer were appointed to fill vacancies on the Board of Censors. Dr. John Earle Meloy of Lincoln, graduate of College of Physicians and Surgeons, Chicago, class of 1900, was recommended for membership by Drs. Lowrie and Brown; Dr. Herman Rothert of Petersburg, graduate of Miami Medical College, of Cincinnati, class of '97, was recommended by Drs. J. W. and I. Newcomer. Both applications were duly referred and after favorable report both gentlemen were elected to membership.

Dr. Black spoke of the need and advantages of thorough organization among the profession and gave the experience and methods of the New York physicians in their recent re-organization as an illustration. He then moved the appointment of a committee of three on the Good of the Profession. Carried. It was moved and carried that Dr. Hurst be chairman of this committee with power to select his associates.

For the Committee on Microscopy Dr. Black reported the recent organization of the section on Microscopy, Pathology and Bacteriology in the American Medical Association together with a brief account of the large and very interesting exhibit of specimens. The clinical value of the use of the microscope was discussed briefly by Drs. Holmes, I. Newcomer, Walker and others.

In the absence of the essayist the session was opened to general discussion and Dr. I. Newcomer spoke of the use of silver nitrate in the eyes of the new-born, relating an instance where through neglect to report the case to him irreparable damage had been done which he felt might have been prevented had he used the solution in the eyes at birth, with other cases where the remedy had been successful in arresting disease.

Dr. Hurst said that Dr. W. T. Montgomery uses a solution of one dram to the ounce. The weak solutions cannot have very much effect in serious cases.

Dr. Coppel rarely sees these cases. The routine use of these solutions in the eyes of the new-born does not seem to me to be needed or advisable. There would be very little serious trouble if the doctor were promptly notified of the first symptoms; but it is true that among some classes of people it is difficult to convince them of the need of active attention to these cases at the first onset of disease.

Dr. Black: Appendicitis is a subject commanding wide attention at this time. The diagnosis of inflammatory intra-abdominal lesions is of the greatest importance. Some physicians still claim to have seen cases of appendicitis seldom or never. The diagnosis must be doubted in such cases. It is true that the knowledge of the proper methods of diagnosis is new and all statistics of more than a few years back are utterly unreliable. Last year the Surgical Section of the American Medical Association spent a whole day discussing this topic. This year it occupied the Medical Section as well as the Surgical Section half a day. Great difference of opinion exists. To find out the facts is the great need. In a paper read before the Morgan County Society the records of the county had been presented. They show a terrible mortality rate from this disease and from our present knowledge of the subject it is apparent that many cases reported under other names were really appendicitis. The mortality rate would be greatly improved by prompt and accurate diagnosis. At present operators have no chance. They do not see the cases till the best time for operation has passed, often not till all hope of success is gone. Except in a very few cases there is a good prospect for success from operation any time during the first twenty-four

hours. After forty-eight hours no one can say what may be the outcome. A girl had appendicitis. After forty-eight hours the symptoms improved and operation was omitted. For five years she remained well. She took a ride one day and while in the country was attacked with severe abdominal pain. In the evening a remedy for pain was used. Early in the morning a physician was called and found a hopeless case of general peritonitis with no chance for successful operation. Perforation had occurred at the onset of the attack. Ochsner's method of rectal nourishment and hypodermic medication was tried, with elevation of the head and shoulders as advised by Fowler. For twenty-four hours she seemed to improve. Henrotin was called and urged immediate operation which was done and in ten hours the girl was dead. The lesson is, operate in the primary attack.

Of 261 deaths from intra-abdominal lesions reported in Morgan county during twenty years only thirteen are called appendicitis. Doubtless at least half the cases were really appendicitis. Senn says at least 85 per cent will recover under any treatment. If this be so we have had 2,000 cases of this disease in that county during the period named, or 100 per year. Fifteen per cent mortality ought to be reduced to five per cent.

Cases of repeated painful "bilious attacks" should be regarded with suspicion. A young man after a day's ordinary labor was attacked with pain at night. Within twenty-four hours an operation was performed, pus was found in a limited cavity. He recovered. He had been subject to bilious attacks. Deaver says that he cannot tell whether a case will progress for better or for worse, hence he urges prompt operation, and is rewarded by a mortality of only one per cent in a long series of cases.

Noon having arrived the Society adjourned for dinner.

After dinner on reconvening G. N. Kreider described (a) a dressing for fractured clavicle. Rings of cotton covered with muslin are made large enough to easily encircle the arm at the shoulder and wrist and to lie loosely around the flexed elbow. Through these adhesive straps are passed, drawing the first backward, the second upward and through both sides of the elbow ring so as to support both above and below the joint and thence drawn over the fracture to the top of the shoulder making pressure. The result is that the member is firmly held as in the Sayre dressing but without the discomforts of that manner of bandaging.

(b) A soldier was struck in play by a comrade by a bayonet just above the pubis. He at once desired to go to stool. As he was given to magnifying small ailments his complaints were to some extent ignored but he was taken to the camp hospital where he vomited several times and at 4 p. m., was sent to St. John's hospital, when seen there by Dr. Kreider, his nose and extremities were cold, but there was no very serious symptoms. An exploration the

next day showed that the bladder was perforated near the pubes in the cavum Retzii. The best method is to empty the bladder by catheter and fill it with about six ounces of sterilized milk. A very slight leaking of milk is visible at once. This method was used, followed by incision through the pre-vesical space and the puncture was closed. The symptoms continued unmodified and on the second day after the first operation the abdomen was opened above the bladder. A second puncture was found close to the perineum, nearly entering the rectum. As it could not be reached from above for suture and the peritoneum was already inflamed a long dressing forceps was passed down, and the perineum was incised on this. Drainage was put in and the patient is doing well at present. The microscope showed blood cells in urine though not enough to be otherwise discovered. The infecting germ when cultivated proved to be the streptococcus pyogenes.

Case 2. Mr. J. when intoxicated had an altercation with a hack driver who threw his hitching weight at him, striking him just above the pubis. No external mark of injury was visible. I was called in consultation with Dr. Ryan and we found the urine bloody and advised operation which was refused by our consultant, one of the oldest practitioners in the community. The post mortem showed the injury to be a rent which could easily have been repaired.

Case 3. A young negro was shot with a pistol near the pubes. The ball grazed the bladder and lodged in the perineum. The abdomen was opened, the wounds found and closed with silk sutures and he made a perfect recovery.

Case 4. During the Virden riot of 1898 a man was shot with a Winchester from the rear at close range. The bladder was torn to pieces by the ball and fragments of the sacrum. Death followed in about twelve hours.

DISCUSSION.

Dr. Black: Dr. Kreider is to be congratulated on the result in the case of the bayonet wound. It shows the value of pelvic drainage.

Dr. Hurst had a case of fracture of the clavicle in a very fleshy man a number of years ago. There seemed to be no good place to apply adhesive straps; so rings were made as suggested by Dr. Kreider and applied about both arms at the shoulders. They were joined by bandage at a proper distance in front and then brought well back across the shoulders. At first it seemed all right but I presently found the fragments were over-riding each other and was obliged to use the ordinary dressing. The method suggested by the essayist seems to meet the indications well.

Dr. Whitley: These cases of bladder injury suggest a case which may be a warning. An elderly man had a gonorrheal stricture of many years standing. There was constant dribbling of urine which had not passed naturally for twelve or fourteen years. After long effort I succeeded in passing a filiform bougie. When

it had been retained twenty-four hours a little larger one was passed; on the third day a small catheter was introduced; on the fourth a larger one with increase of the discharge. The bladder nearly filled the abdomen. A quart of urine was drawn. As it flowed steadily it was allowed to flow till four quarts had passed. Next day he had high fever and on the following day he died from acute nephritis. This might have been avoided if only a small amount of urine had been drawn and abdominal circulation allowed to become normal.

Dr. Ryan: In an old gentleman where every effort failed to enter the bladder by the natural passage aspiration was repeatedly performed with safety. This seemed to the man a rather expensive method, however, and he placed himself in the care of a homeopathic doctor who introduced a trocar. In twelve hours the patient was dead.

Dr. Munson: Mentioned a case of dislocation of the distal end of the clavicle. Is there a better dressing than straps over the injury to the elbow?

Dr. Black had treated a similar case successfully by this method. The over-riding of the clavicle is the difficulty.

Dr. Ryan showed a series of interesting specimens with brief history of the cases. (1) Gall-stones. Woman had had attacks of gastralgia for four or five years, no jaundice, a tumor visible near the liver. Operation. The gall bladder could not be brought into the wound so adhesions were allowed to form for 48 hours and then the bladder was opened through the liver—986 stones were removed. The lady made a good recovery and remains in good health. (2) Repeated attacks of pain and jaundice, with final discharge of gall stones through the bowels. From their size they could not have passed through the duct and doubtless escaped through a perforation following adhesion between the bladder and the bowel. (3) The stone was found lodged in the common duct and was forced through into the bowel by injecting water into the cystic and common ducts. (4) When operation was done the patient had a pulse of 140 and temperature of 104. A good recovery followed. (5) Vesical calculus. A child had pain and fever and could not urinate. The calculus was found in the urethra and was removed from above. Patient recovered. (6) Man, had severe pain due to a "stricture." It was impossible to pass a catheter by an obstruction which could be felt externally as a stone. By careful manipulation it was worked down to the meatus which was unusually narrow and had to be incised before the calculus could pass. (7) Appendices. Girl of 11 years. On Sunday she felt severe pain. Tuesday noon operation was performed; the appendix with a concretion was removed. Recovery. (8) Boy. Appendix found constricted and gangrenous half its length. Recovery. (9) Boy. Had suffered three days with "stomach ache." On operating found pus and general peritonitis. Died in 48 hours. Beware of these attacks of "old-fash-

ioned belly-ache." They may prove fatal. (10) Man. Circumscribed abscess. Appendix with concretion removed. Recovery. (11) This case had been called "malarial fever" for four weeks. The appendix lay in a large abscess. Recovery. (12) Boy of 14. Pulse quick, temperature 102. Next morning the operation was performed. No pus was found and a prompt recovery occurred. (13) Man, similar to case 12. (14) This was a case of so-called appendicitis obliterans.

In circumscribed abscesses do not hunt for the appendix if it does not appear in the wound. There is too much danger of breaking down the protective adhesions. Examination by rectum is often helpful in diagnosis. Dr. Ryan also showed a diagram of the common locations of the appendicitis abscess.

Dr. Kreider, by consent of the Society, spoke of the work of the State Society urging all members of this Society to unite with it and to give their aid in making the Journal as valuable as possible to the profession, especially by reporting local happenings among the profession, removals, etc.

Discussion of Dr. Ryan's report followed.

Dr. Black: The lack of a prompt and positive diagnosis with consequent delay in decision as to treatment is the point to be emphasized and deplored. All the cases of operation that I have seen, before general infection, recovered. The general practitioner sees these cases and virtually decides the time of operation. The surgeon is at his service and has no voice in the decision as a rule, but must simply do what he can when called, often too late to do anything. If a person has pain in the abdomen without discoverable cause, be on the safe side and call it appendicitis.

Dr. Kreider had seen one person who had had five attacks of "typhoid fever." It was appendicitis. Where there are repeated attacks of biliousness or indigestion look out for this trouble.

Dr. Coppel: While in some cases the diagnosis is difficult in most cases a careful consideration of the symptoms and history will make it clear. Most cases which I have had have been operated from four to seven days after the onset of the disease. Patients and friends always ask, "Must you operate?" I explain the conditions and advise prompt operation. If they decline they must take their chances. While 60 per cent to 85 per cent get well a large number of these relapse after a time. It is like sitting over a powder keg to go without operation. Two of my cases were puzzling. (1) Was referred to a surgeon for operation, but the uncertainty led to further delay. Finally incision just above the pubis opened the abscess. Recovery followed. (2) The trouble was very low down and the man had marked bladder symptoms. Early in the morning of the day he was to be taken to the hospital a tumor appeared like a distended bladder. It was not reduced by catheterization, however. The incision was

close to the pubis and plenty of pus appeared. This was the only fatal case in my practice.

Dr. Whitley: Good authorities say operation is required in 1 case in 20. I am often in doubt for 48 hours. Like other inflammations this will take about a week to show its character. If fever subsides at this time look for resolution, but if it rises again look out for most serious condition. I have seen successful operations on the 7th, 9th and 10th days. Cases of perityphilitis sometimes recover partly, but continue far from well. Two cases I have known died, refusing operation, from a second attack. Most of the gall stones shown might have passed through the natural passages. Most of the jaundice is caused by catarrhal conditions. Searching for a remedy that would dissolve the stones I found they simply vanished when chloroform was applied and though I did not suppose that the drug could reach the stones in the gall bladder I gave 20 drops of a 10 per cent solution of chloroform in alcohol after each meal and have found it very useful in three cases securing apparent cure in some protracted ones.

Dr. Holmes: Cases of typhilitis sometimes open into the bowel and so recover. Is there apt to be any difficulty in the diagnosis between appendicitis and floating kidney? In the case of a young lady with floating kidney taken to Chicago for operation, Dr. Quine advised against it. What is the opinion of surgeons in this subject?

Dr. Black: Would not operate unless the patient is very seriously affected by the state of the kidney. In cases of appendicitis the patient will acknowledge that at some time there was a small spot more painful than any other. Ask him to locate this and it will be found uniformly close to McBurney's point.

On motion, Society adjourned, leaving all arrangements for the October meeting to the Committee on Program.

Katherine Miller, Secretary.

CHAMPAIGN COUNTY MEDICAL SOCIETY.

The Champaign County Medical Society met at 3 p. m., Thursday, Aug. 16, at Burnham hospital. Members present: T. J. McKinney, president; C. M. Craig, J. E. White, C. B. Johnson, J. S. Mason, Z. E. Matheney. Communication of C. E. Black of state Society requesting names of committee on "The Good of the Society," read and secretary instructed to notify him of following committee: J. E. White, Urbana; W. K. Newcomb, Champaign; A. S. Wall, Champaign. President by motion of the Society named C. B. Johnson to confer with Chicago Medical Society in arranging a banquet in Chicago in honor of Christian Fenger.

C. M. Craig read an interesting paper on "Eye Strain," with report of cases, which elicited a general discussion by all members. J. S. Mason reported fatal case of Asthma, hereditary in boy at 6 years.

J. C. Dodds, Secretary.

Marriages, Deaths, Change of Address

MARRIAGES.

Dr. C. I. Hoffman and Miss Ida Dreyfus, of Chicago, Aug. 1, 1900.

Dr. Jas. M. Ramey and Miss Susie A. Eastland, of Chicago, Aug. 8, 1900.

DEATHS.

(Furnished by the State Board of Health.)

Duncan, Helen M., at Jacksonville.
Elrod, Lawrence E., in Colorado, August 18th.
Klaszynski, Chas., at Chicago, June 3d.
Lence, Wm. C., at Jonesboro, Aug. 1st.
Logan, David M., at Virginia, July 14th.
Newell, Horace, at Ava, Aug. 8th.
Voight, L., at Freeport, Aug. 1st.
West, Wm. C., at Geneseo.
Whitnell, Josiah, at Vienna, July 20th.

CHANGES OF ADDRESS.

(Furnished by the State Board of Health.)

CHANGES IN CHICAGO.

Arnold, Samuel E., 9132 Greenwood ave. to 9310 Cottage Grove ave.
Bloch, Max E., 512 S. Lincoln st. to 1153 Lincoln ave.
Bachelle, Cecil V., 575 W. Adams st. to 754 Larabee st.
Bettman, Boerne, 2522 Michigan ave. to 2601 Kenyon ave.
Bartholomew, R. W., cor. Wood and York sts. to 306 Wood st.
Becker, Wm., 954 W. 21st Place to 1037 S. Leavitt st.
Beck, John C., 128 to 118 Oak st.
Bieringer, Wm. A., 104 Warren ave. to 1903 Milwaukee ave.
Berg, L. M., 2236 to 2032 Michigan ave.
Cullen, Geo. A., 176 23d st. to Illinois Steel Company Hospital.
Caldwell, Thos. J., 11412 Michigan ave. to 5103 State st.
Detwiler, D. W., 1800 Wabash ave. to 2400 Dearborn st.
Dvorak, Rose E., 540 W. 12th st. to 192 W. Division st.
Dunlap, John, Masonic Temple to 580 Washington Boul.
Dennis, Geo. J., Lakota Hotel to Kenwood Hotel.
Damiani, Jos., 145 Grand ave. to 174 N. Halsted.
Fiske, David, 291 S. Lincoln st. to 425 LaSalle ave.
Fegan, Geo. R., 280 Leavitt st. to 960 Armitage ave.
Freedman, Jos. C., 5473 Ellis ave. to Cook County Hospital.
Hollister, John C., 2348 Calumet ave. to St. Luke's Hospital.
Hawley, Edgar R., The Loraine to 3746 Ellis ave.
Hardt, Harry G., 756 W. Adams st. to 6755 Emerald ave.
Klein, John, 4800 N. Clark st. to 530 Lunt ave.

Lewis, T. W., 417 E. Huron st. to 1888 Diversey Boul.
 Loomis, Philip A., 552 Jackson Boul. to 330 Warren ave.
 MacFarlane, Wm. A., 962 W. Taylor st. to 573 Oakley ave.
 Mix, Chas. L., 361 S. Campbell ave. to 3035 S. Park ave.
 Mussalen, E. J., 278 Michigan ave. to 2502 Wentworth ave.
 Orvis, Georgia S., 19 Walnut st. to 167 S. Sangamon st.
 Patton, Jacob A., 2271 Harrison st. to 1150 Sheridan Road.
 Peacock, Albert, 352 to 348 E. 55th st.
 Palmer, Ralph F., 531 W. Adams st. to Lake Side Hospital.
 Rubovits, Wm. H., 4626 Indiana ave. to Michael Reese Hospital.
 Smith, Jas. T., 184 Dearborn st. to 65 Washington st.
 Scott, Robt. D., 438 LaSalle st. to 3200 Wallace street.
 Schran, David L., 3421 Prairie ave. to Michael Reese Hospital.
 Titus, Jerome H., 606 Congress st. to Chicago Polyclinic and Hospital.
 Turk, R. C., 2346 Dearborn st. to 452 E. 49th st.
 Tufts, Frank S., 295 to 925 S. Halsted st.
 Van Pelt, Ryan T., 100 E. 22d st. to 167 Dearborn st.
 Vernon, Harry S., 293 Oak st. to 174 E. Chicago ave.
 Willis, Geo. H., 286 Oakley Boul. to 6917 Eggles-ton ave.

CHANGES FROM CHICAGO.

Allen, Omer F., to Dongola, Ill.
 Brooks, F. C., Jr., to Washington, Ill.
 Burkholder, S. G., to Pennsylvania.
 Campbell, Omar E., to Camargo, Ill.
 Colby, B. Dorr, to ————
 Dahms, Oscar A., to Davenport, Ia.
 Dryden, Wm. F., to Galva, Ill.
 DaCosta, A. R., Jr., to Woodson, Ill.
 Graham, Ralph, to Monmouth, Ill.
 Greer, C. E., to Charleston, Ill.
 Hawks, Jos. K. P., to Bloomington, Ill.
 Harvey, Frank, to Dana, Ill.
 Hopkins, Sam'l. R., to Springfield, Ill.
 Iden, Edgar H., to LeRoy, Ill.
 Klebs, Henry, to Burns, Oregon.
 Morgan, Thos. W., to Lowder, Ill.
 McClure, Geo. H., to Wisconsin.
 McKinley, J. A., to Franklin, Ia.
 Pogue, Mary E., to Lincoln, Ill.
 Rogoff, Herman M., to Cleveland, Ohio.
 Scott, Chas. R., to Belvidere, Ill.
 Stewart, Duncan F., to Oneida, Ill.
 Sargent, Elvan, to Moline, Ill.
 Thomsen, Carl H., to Riverdale, Ill.
 Williams, Robt., to Carthage, Ill.
 Wheeler, Roy M., to Creston, Ill.
 Wright, Elva A., to Lake Forest, Ill.
 Washington, John N., to ————

CHANGES TO CHICAGO.

Bohan, P. T., Seaton, Ill., to Alexian Bros. Hos-pital.

Cory, Albert, Marion, Ia., to 849 N. Kedzie ave.
 Corbus, Burton R., LaSalle, Ill., to 4147 Lake avenue.
 George, Arthur W., Battle Creek, Mich., to 1926 Wabash ave.
 Hackett, Emma C., Dubuque, Ia., to 960 Jackson Boul.
 Kennedy, John A., Toronto, Can., to 55 Ashland Boul.
 Langhorst, Henry F., Aurora, Ill., to 58 Evergreen ave.
 Piper, Ralph S., Bloomington, Ill., to 148 E. 37th st.
 Richards, Robt. M., Detroit, Mich., to 100 State street.
 Simpson, Burton J., Chester, Ill., to University of Chicago.
 Tyson, Earle H., Peoria, Ill., to 21 Quincy st.
 White, Julia A., Battle Creek, Mich., to 1926 Wabash ave.
 Weisenberg, Berthold, Milwaukee, Wis., to 537 S. Halsted st.
 Watson, F. V., Roberts, Wis., to 4658 State st.

CHANGES FROM ILLINOIS.

Cruzen, J. L., Seaton to Oskaloosa, Ia.
 Dyer, Almarian, W., Hornsby to ————
 Farris, Richard E., Anna to ————
 Grayson, Wm. H., Madison to St. Louis, Mo.
 Hopkins, Myron, Aurora to ————
 Lemen, Harry R., Alton to China.
 Pelletier, D. H., St. Anne to Fowler, Ind.
 Pleake, S. Morton, Breese to ————
 Rothert, Herman, Charleston to ————
 Ranniger, Guido, Naperville to Germany.
 Wilkinson, C. E., Monticello to Europe.

CHANGES TO ILLINOIS.

Adams, David S., Keokuk, Ia. to Rock Island.
 Anthony, John A., to Chenoa.
 Maxwell, Geo. B., to Haldane.
 McKinnie, P. L., to Moline.
 Nichols, Wm. T., to Moline.
 Pinkerton, Walter J., Waupaca, Wis., to Lud-low.

CHANGES IN ILLINOIS.

Bumstead, Chas. M., Decatur to Monticello.
 Dorsey, Michael F., Amboy to Ladd.
 Ford, John F., Waggoner to East St. Louis.
 Guertin, Jos. A., St. Anne to L'Erable.
 Giles, Henry W., Wataga to Rio.
 Maxon, Oscar F., Jr., Danville to Springfield.
 McGinnis, Wm. J., Joliet to Lockport.
 McGowan, Thos. J., Lawrenceville to Bridge-port.
 Mitchell, Jas. J., Peoria to Basco.
 Price, Chas. J., Forreston to Mt. Morris.
 Penniman, Alfred R., Carrollton to Stanford.
 Ronneberg, W. Geo., Rapatee to Rock Island.
 Stocker, Alfred, Rock Island to Erie.
 Smith, Wm. K., LaHarpe to Galena.
 Stoner, Fred R., Decatur to Harristown.
 Tabor, Frederick S., Hinkley to Spring Valley.
 Taylor, A. D., Williamsville to Springfield.
 Taylor, Virgil M., Chatham to East St. Louis.
 Whiteaker, Wm. J., Belknap to Olmsted.
 Welsh, Prudence M., Bethany to Trenton.
 Wells, Ernest E., Winnebago to Polo.

CALENDAR OF MEDICAL SOCIETIES.

City.	President.	Secretary.	Time and Place of Meeting.
Alton Medical Society.....	W. A. Haskell, Alton.....	P. W. Beckman, Alton.....	1st Thursday of each month
Chicago Pediatric Society.....	A. C. Cotton, Chicago.....	F. S. Churchill, Chicago.....	Monthly
Chicago Society of Internal Medicine.....	John A. Robinson, Chicago.....	Ed. F. Wells, Chicago.....	1st Friday of every month Oct. to June
Chicago Surgical Society.....	John E. Owens, Chicago.....	A. W. Eisendrath, Chicago.....	Quarterly in connection with Chi. Med. Soc.
Chicago Laryngological Society.....	E. Fletcher Ingals, Chicago.....	T. Melville Hardie, Chicago.....	Monthly, except July and August
Chicago Orthopedic Society.....	Frederic C. Coolidge, Chicago.....	John L. Porter, Chicago.....	2d Friday of each month
Chicago Academy of Medicine.....	W. L. Baum, Chicago.....	J. G. Kierman, Chicago.....	1st Friday of each month
Chicago Bohemian Medical Society.....	Chas. Stullik, Chicago.....	W. J. Plummer, Chicago.....	Every Wednesday evening
Chicago Medical Society.....	J. H. Stowell, Chicago.....	S. C. Plummer, 436 Lake St., Chicago.....	2nd Monday of each month
Chicago Pathological Society.....	Ludvig Ickerton, Chicago.....	George H. Weaver, Chicago.....	3rd Friday of each month
Chicago Gynecological Society.....	Thomas J. Watkins, Chicago.....	C. P. Pluckard, Chicago.....	2nd Tuesday of each month
Chicago Ophthalmological & Otiologic Soc.....	Lyman Ware, Chicago.....	Wm. H. Rumpf, Chicago.....	No regular meeting
Chicago Neurological Society.....	Richard Dewey, Chicago.....	Sydney Kuh, Chicago.....	Quarterly
Chicago Medical Examiners.....	Denslow Lewis, Chicago.....	J. H. Stowell, 103 State St., Chicago.....	2nd Monday of each month
Demonstrator's Association of Chicago.....	H. A. Hadley, Chicago.....	M. L. Harris, Chicago.....	Elks Hall, last Thursday eve, each month
German Medical Society.....	Herbert C. Jones, Decatur.....	John T. Miller, Decatur.....	Quarterly
German Medical Society of Chicago.....	M. Herzog, Chicago.....	Adolf Dicker, Chicago.....	2nd Monday of each month
Jacksonville, Medical Club.....	C. P. Thompson, Jacksonville.....	H. C. Campbell, Jacksonville.....	Every two weeks
Medico-Legal Society of Chicago.....	N. S. Davis, Jt., Chicago.....	Wm. L. Baum, 103 State St., Chicago.....	1st Saturday September, March and June
North Chicago Medical Society.....	Carl Wagner, Chicago.....	J. N. Washington, Chicago.....	Monthly
Ottawa City Medical Society.....	J. C. Hatheway, Ottawa.....	Wm. A. Pike, Ottawa.....	Monthly
Peoria City Medical Society.....	O. J. Koskoton, Peoria.....	N. M. Sedgwick, Peoria.....	Monthly
Physician's Club of Chicago.....	W. H. Wilder, Chicago.....	L. H. Mettler, Chicago.....	3d Thursday of each month
Scandinavian Medical Society of Chicago.....	Geo. A. Torrisson, Chicago.....	Thos. Warloe, Chicago.....	1st and 3d Tuesday of each month
South Chicago Medical Society.....	Chas. F. Swan, Chicago.....	John S. Davis, Chicago.....	1st Tuesday in each month
The Medical Women's Club of Chicago.....	Gertrude G. Wellington, Chicago.....	Jennie Trish Topinka, Chicago.....	2d and 4th Wednesdays of each month
Twin City (Champaign and Urbana) Clinical Association.....	H. C. Howard, Champaign.....	Jas. H. Finch, Champaign.....	1st Monday of each month
Urbana Society of Physicians and Surgeons.....	Chas. A. Nichols, Urbana.....	E. S. Smith, Urbana.....	
County.	President.	Secretary.	Time and Place of Meeting.
Adams County Medical Society.....	Otis Johnson, Quincy.....	C. D. Center, Quincy.....	Monthly, on 2nd Monday at Quincy
Bureau County Medical Society.....	S. W. Hopkins, Walnut.....	A. E. Owens, Princeton.....	2nd Thursday of Nov. and May
Rond County Medical Society.....	B. F. Coop, Greenville.....	C. C. Gordon, Greenville.....	Meets in September and April
Clay County Medical Society.....	J. M. Bayles, Flora.....	W. E. Burgett, Louisville.....	Quarterly at Louisville
Champaign County Medical Society.....	T. J. McKinney, Gifford.....	J. C. Dadds, Toledo.....	Thurs. nearest middle of month, Burnham
Clinton County Medical Society.....	W. T. Gordon, Carlyle.....	M. Broeding, Carlyle.....	May, Aug., Nov., and Feb., at Carlyle
Crawford County Medical Society.....	T. N. Rafferty, Robinson.....	L. J. Weil, West York.....	2d Thurs. in July, Sept., Nov., Jan. & May
DeWitt County Medical Society.....	A. E. Campbell, Clinton.....	J. C. Myers, Clinton.....	2d Tuesday in Jan., April, July and Oct.
Douglas County Medical Society.....	Maud E. Nichols, Tuscola.....	W. E. Rice, Tuscola.....	1st Thursday in Feb., May, Aug. and Nov.
Fulton County Medical Society.....	E. W. Regan, Canton.....	D. S. Ray, Cuba.....	
Gallatin County Medical Society.....	Alex. H. Colvard, Shawneetown.....	Geo. P. Cassidy, Shawneetown.....	1st Monday in May at Carthage
Hancock County Medical Society.....	C. L. Ferris, Carthage.....	R. L. Casburn, Carthage.....	Quarterly
Jefferson County Medical Society.....	J. H. Mitchell, Mt. Vernon.....	A. A. Dearduff, Mt. Vernon.....	1st Thursday of each month
Jo Daviess County Medical Society.....	H. T. Godfrey, Galena.....	D. G. Smith, Elizabeth.....	Annually, 3rd Tuesday in April
Kankakee County Medical Society.....	Geo. H. Lee, Kankakee.....	J. H. Roy, Kankakee.....	3d Tues. in April and Oct. at Carlinville
Lake County Medical Society.....	L. M. Bergen, Waukegan.....	E. C. Haven, Lake Forest.....	1st Tuesday Jan., April, July and Oct.
LaSalle County Medical Society.....	R. W. Bower, Sheridan.....	A. H. Butterfield, Ottawa.....	1st Thursday of each month at Bloomington
Macoupin County Medical Society.....	J. S. Collins, Carlinville.....	J. P. Matthews, Carlinville.....	
McDonough County Medical Society.....	D. A. Blair.....	S. C. Stremmel.....	
McHenry County Medical Society.....	Chas. E. Chapin, Bloomington.....	F. C. Vandervort, Bloomington.....	
McLean County Medical Society.....			

CALENDAR OF MEDICAL SOCIETIES—Continued.

County.	President.	Secretary.	Time and Place of Meeting.
Monroe County Medical Society.....	H. Ganier, Floraville.....	L. Adelsberger, Waterloo.....	1st March and September at Waterloo
Moore County Medical Society.....	W. C. Cole, Jacksonville.....	Edw. Rowe, Jacksonville.....	2d Tuesday of each month at Jacksonville
Mountie County Medical Society.....	B. F. McLeannum, Bellamy.....	J. W. Hayes, Sullivan.....	2d Tuesday of each month.
Pike County Medical Society.....	L. J. Harvey, Griggsville.....	R. H. Main, Barry.....	Monthly
Ogle County Medical Society.....	G. M. McKenney, Oregon.....	H. A. Mix, Oregon.....	1st Wednesday in January and July
Physicians' Protective Assn. of Jackson Co.	W. W. Essick, Murphyboro.....	O. B. Ormsby, Murphyboro.....	2d and 4th Saturday of each month
Rock River Valley Medical Association.....	W. G. McBride, Sterling.....	A. J. Miller, Dixon.....	2d week in June and December
St. Clair County Medical Society.....	W. H. McLean, E. St. Louis.....	J. T. Stack, E. St. Louis.....	Monthly
Sauyer County Medical Society.....	J. A. Harvey, Kushville.....	C. W. Ball, Rushville.....	Monthly
Saline County Medical Society.....	J. W. Talham, Harrisburg.....	J. R. Baker, Harrisburg.....	1st Monday in each month.
Stephenson County Medical Society.....	Geo. N. Kreider, Springfield.....	E. P. Bartlett, Springfield.....	Monthly, on 2d Monday at Springfield
Stephenson County Medical Society.....	J. B. Lettrel, Orangeville.....	J. F. Fair, Freeport.....	Annually
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Vermilion County Medical Society.....	B. S. Evans, Watsika.....	Leroy Jones, Hoopston.....	2d Friday evening at Danville
Will County Medical Society.....	W. A. Cochran, Danville.....	E. E. Clark, Danville.....	2d Tuesday of each month
Wabash County Medical Society.....	G. M. Feairs, Joliet.....	Thos. J. Wagner, Joliet.....	Quarterly
Wabash County Medical Society.....	Norman Leeds, Bellmont.....	J. B. Maxwell, Mt. Carmel.....	Annually
Winnebago County Medical Society.....	T. N. Miller, Rockford.....	J. H. Frost, Rockford.....	Semi-Annually
Warren County Medical Society.....	E. J. Blah, Monmouth.....	A. G. Patton, Monmouth.....	1st Thursday in Jan., April, July and Oct.
White County Medical Society.....	W. W. Apple, Carmi.....	W. A. Steele, Carmi.....	1st Monday of Jan., April, July and Oct.
Williamson County Medical Society.....	W. H. Bentley, Marion.....	G. W. Evans, Marion.....	1st Tuesday in May
Woodford County Medical Association.....	C. E. Davis, Peoria.....	Frank Studdiehard, El Paso.....	
District.	President.	Secretary.	Time and Place of Meeting.
Aesculapian Society of the Wabash Valley.	Z. T. Baum, Paris.....	H. McKennan, Paris.....	Annually, Chicago or Springfield
Association Military Surgeons of Illinois...	Col. Nicholas Senn, Chicago.....	Lt. Col. Chas. Adams, Chicago.....	4th Thursday of Jan., April, July and Oct.
Brahmar District Medical Society.....	J. L. Lowrie, Lincoln.....	Katherine Miller, Lincoln.....	Last Tuesday in April and October
District Medical Society of Central Illinois.	J. N. Neims, Taylorville.....	C. R. Spicer, Taylorville.....	At Elgin in May and at Aurora in Nov.
Fox River Valley Medical Association.....	C. L. Smith, Aurora.....	M. M. Robbins, Aurora.....	Annually, 1st Tuesday in May at Galva
Galva District Medical Society.....	W. A. Grove, Galva.....	C. W. Hall, Kewanee.....	Quarterly
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ILLINOIS Medical Journal

The Official Organ
of the
State Medical Society



A Monthly Bulletin
Edited by the
Publication Committee

Printed by
THE ILLINOIS STATE JOURNAL COMPANY.

Entered in the Springfield Postoffice as Second-Class Matter.

Volume L.
New Series, Vol. II. }
Number 5.

Springfield, Ill., October, 1900.

{ Subscription, \$3 a Year.
Single Copies, 25 Cents.

TABLE OF CONTENTS.

ORIGINAL ARTICLES.

Rectal Fistula—A. E. Halstead, M. D., Chicago.	195
Nephritis, With Report of Three Cases—J. W. Kelly, M. D., Springfield.	199
Chronic Gastritis—Jos. Brayshaw, M. D., Berlin.	206
Sterility in the Male—Emil Reis, M. D., Chicago.	209
The Spanish-American War as Seen by the Military Surgeon—Allen A. Wesley, A. B., M. D., Chicago.	216

EDITORIALS.

Statistics.	228
Intra Spinal Cocainizing for General An- esthesia.	228
International Medical Congress.	228

TRANSACTIONS.

Transactions of 50th Annual Meeting.	224-227
---	---------

CORRESPONDENCE.

The Thirteenth International Medical Con- gress—W. M. Harsha, M. D., Chicago.	227
---	-----

The Work of the Legislative Committee— A. C. Corr, M. D., East St. Louis.	230
---	-----

From Southern Illinois—J. H. Mitchell, M. D., Mt. Vernon.	232
---	-----

National Association for the Study of Epi- lepsy, Etc.—W. P. Spratling, M. D., Soyea, N. Y.	232
--	-----

COUNTY AND DISTRICT SOCIETIES.

Warren County Medical Society.	233
Morgan County Medical Society.	233
Winnebago County Medical Society.	233
Montgomery County Medical Society.	234
Sangamon County Medical Society.	234
Adams County Medical Society.	234
Pike County Medical Society.	235
Southern Illinois Medical Association.	236

Marriages, Deaths, Changes of Address.	237-238
Calendar of Medical Societies.	239-240
List of Officers.	194

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MAY 21, 22, 23, 1901.

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The Illinois Medical Journal.

The Official Organ of The Illinois State Medical Society.

VOL. L.
New Series, Vol. II. }
No. 5.

Springfield, Ill., October, 1900.

{ SUBSCRIPTION
{ \$3.00 A YEAR.

RECTAL FISTULA.*

BY A. E. HALSTEAD, M. D., CHICAGO,
Professor of Surgery in Chicago Polyclinic.

The term rectal fistula or rectal sinus should be employed only in the description of a suppurating channel opening at one extremity on the skin in the neighborhood of the anus and the other terminating in an abscess cavity in close proximity to the rectal or anal canal. This cavity may or may not communicate with the bowel and is always the result of infection from the rectum. Fistulous tracts communicating with abscesses having their starting point from some other pelvic organ or from the bony wall of the pelvis, even though they may communicate with the rectum, cannot properly be considered under this head. Furthermore, the term fistula presupposes a chronic condition and should not be applied to recent sinuses such as the tracts formed by the discharge of acute abscesses which many times close spontaneously as well here as channels of like origin do in other parts of the body.

It is fair to assume that all rectal or anal fistulae are the immediate result of an abscess which has formed within the wall or in close proximity to the lower bowel. The location of the abscess determines the character of the fistula. Thus an abscess above the Levatores Ani, in the superior pelvic space, will give us a true rectal sinus with the external opening at any distance from the anus. The internal opening, if one exists, is always above the sphincters and frequently high up in the rectum. These high rectal fistulae are rare excepting as a complication of stricture.

If the abscess develops in the Ischio-rectal Fossa, which is by far the most

usual place, the pus will be directed in the majority of cases by the anal fascia which forms the roof of this cavity and consequently the internal opening will be found at a point where the fibres of the Levator Ani with the anal fascia are inserted into the rectum. This corresponds to the point of approximation of the internal and external sphincters. In these cases the sinus may pass above or below the external sphincter, usually above.

The third variety of fistula, the one which Quenu considers the most common, is the subcutaneous or submucous resulting from suppuration in the anal wall below the external sphincter. The infection in these cases usually begins in the hemorrhoidal node somewhere near the mucocutaneous junction. Although this may be the commonest form of fistula, yet it is not the one most commonly treated by the surgeon, as in many cases the symptoms produced by this condition are insignificant and do not attract the patient's attention and he therefore does not seek treatment.

All of these varieties may be either complete or incomplete, that is, have two orifices, one opening into the rectum and the other on the skin, or they may have but one and that may be either mucous or cutaneous.

The question of the relative frequency of complete or incomplete fistulae is still unsettled. It is generally admitted by all writers that incomplete internal fistulae are very rare. In Czerny's clinic of 61 cases operated, which were reported by Griffrath, only three internal incomplete fistulae were treated. The explanation of the infrequency of this form of fistula is that if they are not treated within a short time they usually become complete fistulae, that is to say, they may be regarded as the first stage of a complete fistula.

Incomplete external fistula is regarded

*Read at the Fiftieth Annual Meeting of the Illinois State Medical Society, Springfield, May 16, 1900.

by some as the commonest variety. In the cases treated in Czerny's clinic that have just been referred to, of the 61, 40 were incomplete external. This large proportion of external fistula has not, however, been found in the practice of other surgeons. Beck, in 37 cases treated, did not find one case of incomplete fistula, and many others have had the same experience. It is undoubtedly true that the internal orifice of a fistula may close at any time and thus convert a complete fistula into an external incomplete. In the early stages, however, the complete fistula is by far the most common. Another explanation of the supposed frequency of the external incomplete fistula is that in many instances the abscess cavity extends some distance above the point at which the rectal wall has been perforated and for this reason the internal orifice is not readily found and may be overlooked.

In passing a probe, particularly in the submucous variety, we frequently find the mucous membrane separated from the musculature of the gut for some distance, while the internal orifice is quite close to the anal verge, hidden in many cases behind a fold of the mucous membrane which renders its detection extremely difficult.

The external orifice of a rectal fistula may be found at any point on the perineum or on the skin of the buttocks at some distance from the anus. Its location is largely determined by the relation of the sinus to the various layers of fascia which assist in closing in the pelvic outlet. If the sinus is immediately underneath the skin or superficial layer of the superficial fascia it may open anywhere even on the inner side of the thighs or far out on the buttocks. If beneath the deep layer of the superficial fascia the length of the fistulous tract will be limited by the attachments of the fascia to the pelvic bones. In the majority of cases the external orifice will be found within an inch of the anus and posterior to a line drawn transversely through its center. Goodsall considers that there is a constant relation between the point of opening of the fistula on the

skin and its internal orifice. In those where the cutaneous orifice is posterior to this line the internal is in the posterior rectal wall; where it is anterior, the mucous orifice is directly above.

The appearance of the external orifice will in many cases enable us to determine the nature of the fistula. In simple non-tubercular fistula, the opening is usually found in the center of a depression which is the result of cicatricial contraction and immediately surrounded by a slightly elevated zone of granulation tissue. In the tubercular form the external orifice frequently opens on the floor of an ulcer which presents an irregular outline with undermined edges, the skin in the vicinity of the ulcer having a bluish tint with tubercles bordering its margin.

The tract of a fistula is seldom straight and frequently presents variations in caliber in different parts of its course. In many cases several sharp turns are encountered when we attempt to pass a probe. In others we find diverticula and pouches or secondary channels leading from the main tract. At times these open by numerous orifices on the skin of the perineum and buttocks. Ball records a case in which 22 cutaneous openings were found. These constitute the complex fistula of some authors. The explanation of this condition is simple; the main tract becomes temporarily occluded either by fecal matter or inflammation products and the contents of the abscess must find an exit in another direction, which is accomplished by establishing a new sinus. The so-called horse-shoe fistula is simply two fistulae opening one on each side of the anus and both leading to a common cavity, usually situated behind the posterior wall.

The structure of a fistula varies with its age. In recent cases, shortly after the sinus is established, we find a channel only slightly indurated lined with granulation tissue, which bleeds easily if disturbed. In old cases the deeper layers of granulation tissue have become changed into fibrous tissue while that forming the innermost lining of the tube is flabby and presents a pale-gray appearance in contradistinction

to the bright red that is found in the more recent cases.

In tuberculous fistulae the wall of granulation tissue is thicker and there is not so much of a tendency for the cells of the deeper layers to progress into mature connective tissue. We also find localized dilatations of the tract forming small tubercular abscesses. In all, as time passes, the induration becomes greater and the chances of spontaneous recovery become less, chiefly because of the fibrous tissue preventing collapse of the tube.

The question of the frequency of tubercular rectal fistula and of the coincidence of fistula and pulmonary disease, demands brief consideration. The first to recognize the simultaneous occurrence of rectal fistula and pulmonary tuberculosis was Jean Louis Petit (1675-1750). He also is credited with having made the observation that in those cases in which a rectal fistula was closed the patient would be attacked with pulmonary tuberculosis. This idea is still held by many at the present time. Of modern surgeons, the first to call attention to the relation between fistula and tuberculosis was von Volkmann in 1875, who observed in several cases fistula originating from tubercular ulcers of the lower bowel. Griffrath, in 61 cases from Czerny's clinic, found lung tuberculosis to be present in 10. In 7 others he was able to obtain a family history of tuberculosis. Hartmann, among 48 cases of fistulae operated upon, found 23 times undoubted signs of pulmonary tuberculosis. In 2, the personal or ancestral antecedents allowed the suspicion of tuberculosis. In 23 cases the patients appeared to be free from this disease. In the 48 cases operated upon only twice were tubercular ulcers of the mucous membrane of the rectum demonstrated. He considers that most cases of fistulae, in tubercular patients, have their origin from the anus and not from ulceration of the rectal mucosa. In 10 cases of ischio-rectal suppuration independent as far as could be determined of any rectal or anal lesion in which bacteriological examination was made, in 6 the pus contained tubercle bacilli. In 1, there

was a mixed infection of tubercle bacilli, streptococcus and the yellow staphylococcus; in the other 5, the tubercle bacillus was associated with the colon bacillus.

The high percentage of tubercular fistula and those associated with pulmonary tuberculosis which Hartmann's cases present, is not equaled in the practice of other surgeons. Allingham, with an exceedingly large experience in the treatment of rectal disorders, found only 14 per cent of his cases of fistula to present any evidences of tuberculosis. In this country there are no records to show that the percentage is higher than Allingham found.

Other diseases, such as syphilis, particularly in the tertiary stage, where gummata are deposited and subsequently suppurate, may constitute the starting point of a rectal fistula. In two of Griffrath's cases, the patients were suffering from diabetes. Ischio-rectal actinomycosis has also been demonstrated to be the cause of rectal fistula in a case reported by Poncet. In a case of rectal actinomycosis treated by the author in 1896, numerous sinuses opened upon the perineum about the anus which closely simulated tubercular fistula.

The literature of the treatment of rectal fistula dates from the beginning of the practice of the art of healing. The various methods which have been employed from the earliest time may be classified as follows: 1. Methods designed to promote healing without laying open the fistulous tracts, there are: (a) Cauterization; (b) compression; (c) subcutaneous division of the sphincter ani externus; (d) curettage with packing the fistulous tract. 2. Division of the tissues between the fistula and the rectum is accomplished; of these we have: (a) Simple incision; (b) ligature; (c) excision; (d) galvano-cautery.

The treatment of fistula by cauterization was practiced in the earliest time. Celsus advised the use of cauterization injections particularly in complex fistula or when the depth of the sinus forbade the use of the knife. Later in the middle ages this method was generally employed. In modern practice we find it still advocated in the class of cases in which Celsus con-

sidered it indicated. Of its utility, at the present time, it may be said to be the method mostly employed by traveling specialists. In regular practice its use is limited to recent simple submucous fistula or in cases where for any reason operative treatment is contraindicated. The methods of application of cauterizing chemicals to fistulous tracts will be found fully described in any modern work on rectal diseases. It may be said in favor of this method that it is devoid of danger, only slightly painful and that it will effect a cure in a certain number of cases. Against it, that it is uncertain and is not to be depended upon in long standing cases or where there are multiple fistulae presenting numerous irregular channels.

Compression was intended to prevent the entrance of fecal matter into the fistula. To accomplish this, foreign bodies were introduced into the rectum. Colombe employed a hollow cylinder of ebony or rubber.

Piedaguel, a linen bag filled with charpie. Attempts to carry out this plan were made with difficulty and only in rare instances were followed by success, consequently it was soon abandoned.

Mayer suggested subcutaneous division of the external sphincter as a means of treating fistula. The finger was passed into the rectum and an incision made close to the anal margin; the knife was then passed on a grooved director and the sphincter divided from within outwards.

Extirpation of fistulae was described and practiced by Celsus. He operated by passing a flat ground probe into the fistula and out through the anus. Traction being made so as to bring into view all of the tissues thus included. The fistula was excised by making two lateral incisions, one on each side of the director. This method was also employed by Cheselden, LaFaye, Pallas and others of that time, who advocated the use of a broad polypous forceps, one blade passing into the rectum and the other in the fistula; all of the tissue grasped was then excised with scissors. This operation was popular particularly among French surgeons, but the result following

were in many cases loss of sphincteric control excessive scar formation or death from sepsis.

Partial excision, consisting of laying open the sinus, with removal of the granulations, fibrous tissues and skin tags, was advocated by Emmert and practiced by Petit, Fallopius and Sabatier. The operation of incision alone was practiced by Hippocrates and was commended by Galen and his pupils because of the speedy cure which usually followed. Galen used a curved probe-pointed knife with a single cutting edge.

During the middle ages these radical methods were lost sight of. The prestige of the operative treatment was quickly restored when Felix successfully treated by incision a fistula on the person of Louis XIV. of France, employing the Bistouri Royale a sickle-shaped knife.

The ligature method was described by Hippocrates and again by Celsus. After the successful operation on Louis XIV. it was discarded, but again introduced by Desault. The credit of simplifying and bringing before the profession the modern operation of incision belongs to Pott, who discarded the complicated instruments used by the French and employed a moderately curved probe-pointed bistoury. After he had shown that extensive excision was not essential and that simple division of the fistulous tract was sufficient, the operation became at once popular and has so remained. Division of the tissue between the rectum and the fistulous tract by the cautery knife has in recent years been popular with a few surgeons. Czerny employs the knife of a Paquelin cautery and his assistant Griffrath, whose report has been referred to, highly praises this method and claims for it distinct advantages over the method of division with cutting instruments.

The procedure which seems to me to be the most rational is the modern method of excision of the fistulous tracts after incision of the tissues between the fistula and the rectum. When all of the fibrous tissue about the tract has been removed, the wound is closed, the deeper parts with

buried catgut and the skin and mucosa with silkworm gut sutures. If this is accomplished and the wound kept aseptic, we secure healing in from five to eight days with sphincteric control almost from the beginning.

The method of simple incision is followed in the majority of cases by a cure, but the time consumed is from three to six weeks, while in excision with suture the patient is practically well at the end of one week. In complex or multiple fistula it may be impossible to remove all of the fistulous tracts at one operation, but this only rarely happens.

In most cases the fistulous channels are underneath the skin and fascia and excision of these tissues is of no consequence. In very few is it necessary to divide the sphincter in more than one place. It is worth remembering that in the operation for fistula, division of the nerves supplying the external sphincter must be avoided, otherwise a permanent paralysis of that muscle may follow.

NEPHRITIS, WITH REPORT OF THREE CASES.*

BY J. W. KELLY, M. D., SPRINGFIELD.

In presenting to you a paper on nephritis, I do so with many apologies, for I know well that there are few diseases on which more has been written in recent years, and by men far more proficient, consequently I feel as though I can offer nothing to your store of knowledge, but think this paper will be productive of some good if I can do no more than impress you with the great prevalence of this much dreaded disease and the importance of being at all times on the alert, so as to not fail in making an early diagnosis; but while giving special attention to prevalence and the importance of its existence, the principal object of this paper is to report three cases, each representing one of the three common forms of nephritis, viz: Acute parenchymatous, chronic parenchymatous

and chronic interstitial; as it is not my purpose to say anything about the suppurative diseases or amyloid disease of the kidneys.

It is my intention to avoid anything of the nature of a text book discourse; still, in speaking of causes and diagnosis, I will occasionally have to mention pathology and symptomatology, because they cannot well be separated.

Classification: Ever since 1827 when Richard Bright called attention to the associated symptoms in kidney diseases, there have been numerous attempts at classification; such men as Virchow, Kelsch, Traube, Lancereaux, Klebs, Bamberger, Cohnheim and others, sought to establish a classification, but did not succeed in rescuing it from that state of confusion in which it existed for so long.

In 1897 at the twelfth International Medical Congress at Moscow, Dr. Brault, of Paris, read a paper discouraging the two forms, parenchymatous and interstitial, holding that acute and chronic is the correct classification, using the following words: "A clinical classification is possible only as regards duration; in all cases of nephritis in which the duration is prolonged, we see constantly hypertrophy of the heart. It is therefore useless in the understanding of nephritis, to have recourse to the old divisions of parenchymatous and interstitial, for if we have (1) the cause of the nephritis, and (2) the date of its appearance, we possess sufficient data to explain what has already taken place; to foresee the future course, and to deduce the corresponding anatomical form."

At the same meeting, Dr. Crocq, of Brussels, in support of a statement that parenchymatous and interstitial nephritis were two distinct conditions, made the following statement: "Albuminuria is due to a desquamation of the epithelium, and we cannot have even a so-called physiological albuminuria, a transitory condition without such cause, although the cause of the albuminuria might be of short duration, and so escape our notice. Moreover, usually a parenchymatous inflammation of the kidneys is the cause of the excretion of albumin which almost invariably points to

*Read at the Fiftieth Annual Meeting of the Illinois State Medical Society, Springfield, May 16, 1900.

chronic Bright's disease. Interstitial nephritis is quite another thing; in this we have an inflammation of the connective tissue which binds together the parenchymatous elements. If the epithelium is not affected there is no albumin in the urine; but if the inflammation extends to the epithelial elements, it at once appears. Clinically, therefore, the author would distinguish two kinds of chronic nephritis; one with, the other without, albuminuria. These are identical with the anatomical forms distinguished as parenchymatous and interstitial.

It is evident that we are not yet all agreed on a uniform classification, but I will make use of the classification most generally accepted, viz: parenchymatous and interstitial.

The complications and consequences of nephritis are so grave that we should never fail to examine the urine in any suspicious case, and it gives evidence of kidney disease so often that I have many times been forced to think of the following words by Dr. Webster while I was a student: "Always examine the urine unless you are sure there is no trouble with the kidneys; but we are never sure, so that means that we should always examine it."

The causes are so numerous and the prevalence so great that we should above all things obtain a full history.

In acute parenchymatous nephritis, we understand the cause in most cases more clearly than in any other form. Scarlet fever has always stood at the head of the list; a fact with which we are all familiar, and our knowledge that nephritis is its most frequent and dangerous complication should be sufficient to prompt us to think of the kidney as soon as we have made the diagnosis; one author places the frequency of scarlatinal nephritis at eighty per cent. Diphtheria occupies second place in the minds of the majority of the profession as an etiological factor, and it certainly is the cause of terrible destruction of the kidneys, and I believe that in many cases, before the introduction of antitoxine, death was due directly to involvement of the kidneys.

Exposure to cold, particularly after perspiring is recognized as a frequent cause. The infectious diseases including the eruptive fevers, extensive burns and other diseases, also certain drugs familiar to you all, are probably to be included in the etiological list.

Councilman describes an acute interstitial nephritis; Weichselbaum also one of a suppurative character and says: "It occurs metastatically, (apart from pyelonephritis) in pyemic processes, and consequently always due to bacteria; mostly pyococci which plug the glomerular loops, or the small blood vessels."

Tyson mentions a case in his own practice, in which "a splinter lodged in the toe and produced an abscess in the thigh; this abscess was followed by a typical acute nephritis."

A great deal has been written on the nephritis of pregnancy, and not without very good reasons. And from the possibility of the disease becoming chronic, that terrible malady, eclampsia, no matter what's its cause, is enough to cause us to not overlook the kidneys. I said no matter what its cause; but eclampsia nearly always associates itself in the mind of the physician with some disturbance in the kidneys. Frerichs, Spiegelberg, Traube, Rosenstein, Landois and others have theorized on its cause, but as far as I can learn, we know of no organ so frequently involved as the kidneys. Jewett in his late work on obstetrics says that "the kidneys are involved in about two-thirds of the cases, and in eighty-four per cent the urine contains albumin in quantity varying up to 2.5% or more. This albuminuria may be due to a pre-existing renal disease, manifested by its appearance in several successive pregnancies, and disappearing in the interval;" but, taking pregnancy in general, Jewett has determined by observation of a large number of cases that from five to ten per cent of pregnant women have albuminuria.

It is stated by many that we have such a condition as physiological or functional albuminuria; but it is difficult for me to understand how albumin can pass through a healthy kidney; if it is excreted for only

ever so short a time, it is reasonable to suppose that during that short time, the kidney is in an abnormal condition; and if it is in an abnormal condition for a short time, it needs watching. I will again refer to Jewett; he says that "in all cases it must be assumed the presence of albumin in the urine has in greater or less degree a pathological significance; a strictly physiological albuminuria does not exist." In speaking of the puerperal state, he makes the following forcible statement. "Albumin may be found in some cases, due to a temporary renal hyperemia, but its presence must be abnormal, and its persistence is always of grave import."

Notwithstanding all of this, how many of us try to prevent an attack of eclampsia by determining the condition of the kidneys, and if disease exists, give the necessary treatment? I think the number that receive no attention is greatly in excess of those who are properly attended to. True, many times we know nothing of the case until we are called at time of labor; but it is our duty to endeavor to educate the people in that direction and teach them the importance of placing themselves under the eye of a physician early in gestation. This same law holds good in the diseases previously mentioned; many cases of scarlet fever, diphtheria, and other diseases, are conducted to the end, let it be recovery or death, without even once examining the urine; such neglect deserves severe criticism when we stop to think of the great prevalence of kidney complications in such diseases.

It is only during the past year or two that I have noticed much said about acute gastro-enteritis and malaria as causative factors in nephritis. Koplik of New York has given close attention to acute nephritis complicating gastro-enteritis; an able article from his pen appeared in the Medical Record of April 1, 1899.

He makes the following statement: "I have been astonished at the frequency of this complication of intestinal disorder of infancy. I have also in the severe cases of intestinal diarrhœas, found that the nephritis gave distinct symptoms which could

be directly attributed to the existence of disturbance of the functions of the kidney." He found almost complete suppression of the urine in severe cases, and on examining the few drops of urine drawn with a catheter, he found albumin and casts of all kinds in abundance; also leucocytes, blood, and renal epithelium. He reports twenty-five cases of gastro-enteritis with involvement of the kidneys in twenty-one; and some of them very severe; two showing blood and blood casts. Some of these children were very young; in one four months old, the urine contained albumin, but no casts; and in one five months old, it showed albumin, hyaline and epithelial casts.

As an instance of the virulence of the infection and the rapidity with which it traveled to the kidneys, he mentions one case in which on examination of the urine, no albumin or casts were found, but in one day there was suppression of urine; but before complete suppression, it was found to contain hyaline, epithelial and blood casts and leucocytes; the child recovered, as did others almost as bad; but it is not likely that it would have recovered if he had not directed his attention to the kidneys. How strongly do we deserve censure for not going to the bottom of our cases as Dr. Koplik did? The majority of us see nothing in such cases except the intestinal trouble unless by accident the mother discovers when it is almost too late, that there is almost complete suppression of urine.

Malaria has not received its share of attention in the etiology of acute nephritis. Thayer, of Johns Hopkins University, in a paper read before the New York Academy of Medicine stated that "in 768 cases of malaria treated at Johns Hopkins Hospital, albumin had been present in 44.6 per cent and casts in 16.6 per cent. He says the frequency of albuminuria in the æstivo-autumnal fevers is almost as great as in diphtheria, and is usually subacute and occasionally passes into the chronic form."

The following is a case seen by myself: March 3, 1899. Charles F., age 3 years, had bronchitis when seven months old.

Had four convulsions in one day when a year and a half old; attending physician said they were caused by intestinal derangement; since that time he has been constipated. Present illness—For past two weeks he has been having a chill every day followed by a fever and sweat; chill does not come at any regular time. The urine leaves a heavy pink stain on clothing. Temperature 104.6; pulse 146.

Treatment—Calomel and moderately large doses of quinine. Diet—fluids. Two days later temperature 101; pulse 128. Bowel movements, one per day. Was not able to obtain any urine, as none was voided except when bowels moved. There was restlessness and pain in occiput, he refused water; sweats almost constantly. Discontinued quinine and gave potassium acetate every three hours. On the following day, March 6th, temperature rose to 104.4; pulse 120. Bowel movements, two in twenty-four hours; urine dark and scant but still unable to collect any. On the following day temperature 103.1; pulse 106. Bowel movements none in 24 hours; urination quite free and about color of weak coffee, with a dark stringy sediment; specific gravity, 1016, strongly acid reaction. Urea 1.5 per cent; albumin present in abundance; the microscope revealed granular epithelial and blood casts and kidney epithelium and red blood corpuscles.

I continued calomel and potassium acetate with a milk diet, along with symptomatic treatment, and on March 20th, seventeen days from the beginning of the treatment the urine appeared normal, but the specific gravity was only 1008 and twenty six ounces of urine in 24 hours.

The specific gravity remained the same for six days and there was a very slight irregularity of the heart with some accentuation of the second pulmonic and second aortic sounds. From this time he continued to improve but his convalescence was slightly disturbed by an occasional rise of temperature sometimes as high as 100; his pulse remained from 90 to 100. He was discharged cured April 20th, about seven weeks from the time I first saw him. I

have seen him occasionally since that time and there has been no return of the renal trouble.

Chronic parenchymatous nephritis while in many respects similar to both acute parenchymatous and chronic interstitial has some points characteristic of itself before it reaches the stage of contraction; for at that stage a differentiation between it and interstitial nephritis is very difficult without an accurate history. Microscopical sections exhibit alteration of normal and choked tubules alongside of other places in which the tubules together with the Malpighian bodies at their extremities are obliterated. Between them is found a large amount of interstitial tissue, and the Malpighian bodies are surrounded by concentric layers of the same. The secondary origin of this form of kidney is not conceded by every one; some claiming an independent primary origin. While we always wish to make an accurate diagnosis, it is not of so much importance at this stage, since the course is about the same as in the primary contracted kidney as it is also the treatment.

The majority of these cases come on insidiously, hence we do not see them very early; still, if we obtain a complete history, we can usually establish a diagnosis, and save the patient a great deal of sickness and discomfort. There are not many factors that we feel certain are concerned in the etiology; it may be a continuation of an acute nephritis. Scarlet fever, even though it existed several years previously, is considered one of the most frequent causes in this as well as in acute nephritis; pregnancy plays a strong part; habitual exposure to cold and dampness may sometimes be a cause; and as in the acute form, malaria is also of importance; this is emphasized by the German writers. Phthisis is undoubtedly a cause.

Again I urge the necessity of inquiring into the history, and whenever we find that the patient is weak, and easily fatigued and has some dyspnoea and headache which is persistent, and digestive disturbance, it is almost criminal not to examine the urine. There is usually the pale waxy appearance

of the skin, and even though it may not pit on pressure, there is often that puffiness of the skin, which is not common in any other disease.

I had a case of that kind less than a year ago, and made frequent examinations of the urine, but found nothing abnormal; still, I was all but sure that nephritis existed, and by persisting in my examination of the urine I finally found plenty of albumin. Another case came under my care whose great complaint was persistent vomiting, and she was suffering from malnutrition of an extreme degree, and was of course bedfast; she had been treated for one year, part of the time by a homeopathic physician, and part of the time by one of our own school, both of them competent men, and during all of this time was receiving treatment for indigestion. There was slight edema of the lower extremities, and an examination of the urine revealed a plain case of chronic parenchymatous nephritis. She died about one month later. Might not her life have been prolonged if the urine had been examined one year sooner? I think it would.

The case I wish to report under this head is as follows:

Aug. 13, 1899. John C., age 17 years applied for treatment for double suppurative otitis media.

History—Parents living and healthy. Four sisters healthy. One sister eleven years old has never been a very strong child, and at present has an obscure fever, which lingers at about 99 degrees. One brother age 25 has recently had appendicitis, and at one time had pneumonia, and is now in North Dakota on account of his health; he has what we might call a tubercular appearance. One uncle on father's side died at the age of 32 of phthisis and another died at 23 of the same disease. Maternal grandmother had several brothers who also died of phthisis.

Patient had pneumonia a year and a half ago; he is a listless sort of a boy and complains of being weak and tired; his temperature is 97; pulse 76.

Treatment—Bitter tonics for two weeks, at the end of which time, he returned and

complained of his usual tired feeling, a capricious appetite and frontal headache, and said that sometimes when reading he was compelled to stop in order to rest his eyes. On examination of the eyes, I found sight and muscular action normal, lungs negative; heart apex beat in nipple line, and is slightly irregular; first aortic sound scarcely audible; urine, pale, slightly cloudy, acid, specific gravity 1012, albumin in abundance and very tenaceous; it was so tenaceous that with his family history, I was at first forced to think of tuberculosis of the kidneys; there were also epithelial and granular casts. I placed him in bed and put him on liquid diet with instructions to drink as much water as he could, and gave him calomel and infusion of digitalis.

Three days later, August 31, I was able to learn the amount of urine in 24 hours, which was 48 ounces. Two days later it was still 48 ounces with a specific gravity of 1020 and albumin scarcely discernable. Two days later the pulse had dropped to 46, a reduction of 22 beats in two days. I withdrew the digitalis and substituted Basham's mixture; albumin reappeared two days later, and the specific gravity diminished until at the end of six days, or thirteen days after the beginning of treatment it was only 1001 with plenty of albumin and urea only one-half per cent, but the quantity in 24 hours was 64 ounces. I had been alternating Basham's mixture with infusion of digitalis, as indicated, up to this time, but the pulse never rose above 50 and sometimes it was as low as 40. The quantity remained at about 48 ounces for 24 hours.

On September 20th, three weeks from the beginning of treatment, I allowed him to get up, as I concluded that his anxiety over lying in bed and being starved, as he expressed it, were more injurious than the nephritis, for he was emaciating quite rapidly even though he had been drinking large quantities of milk. At this time I allowed him to eat tomatoes, baked apple, and a small potato. On Sept. 23, the urine had again reached 64 ounces and continued during the time I treated him.

On Sept. 30th, after he had been under treatment for 33 days his pulse rate had increased to 84 and was having from two to three bowel movements daily. Urine was pale, clear and of an alkaline reaction; specific gravity 1013 and feeling decidedly improved, still his urine contained albumin and a few epithelial casts. I gave him Dr. Danforth's favorite perscription of Iron-Citrate; Potassium Citrate, Syrup of Lemon. He thought he was well enough to get along without medical attention and has not presented himself since. I see him occasionally and he looks well notwithstanding his disease.

CHRONIC INTERSTITIAL NEPHRITIS.

This is the one form of nephritis that we meet when the patient least suspects it, and many times we do not suspect it ourselves. It is often found when we are examining applicants for life insurance, and many times a patient comes to us complaining of something apparently foreign to the kidneys, and to his astonishment as well as perhaps to our own, we find albuminuria; and it sometimes has no etiological relation to the trouble of which he complains. In this disease I believe we find in some cases, albumin and casts only at certain times; I believe this is often the so-called physiological or functional albuminuria. Some assert that we may find both albumin and casts, and still have no nephritis. Nephritis is a disease, the diagnostic signs of which are the presence of albumin and casts in the urine. The pathological anatomy of a kidney which excretes these elements is too well understood to say a word on it; therefore, it is difficult for me to understand how we can have albumin coming from a healthy kidney.

Senator says "any, even the smallest amount of albuminuria is a sign of a pathological process in the kidney. Albumin can leak through the filter that was meant by nature to retain it, only when there is an organic affection of the organ."

We do not know the cause of chronic interstitial nephritis in most cases; numerous causes have been mentioned, but a great many of them are probably conjectural; we occasionally see a case which may

be a continuation of an acute case. Diabetes Mellitus has been mentioned as a cause, as has also malaria, grief, lead, alcohol, syphilis, tuberculosis, impacted calculi, extension upwards of cystitis, exposure to cold, dampness and privation. One writer asserts that the disease is from one-third to one-half more frequent in men than in women; but says that the disproportion is not so great during pregnancy and gives this as proof that pregnancy is a causative factor. Heredity has also been mentioned. Tyson speaks of one family where heredity certainly did seem to have some weight; probably you all have read it, but to refresh your memories I will give his words as follows: "A remarkable instance of this occurred in my own practice. I was consulted by a man age 30 who had granular kidneys. His father and mother both died of Bright's disease, aged 56 and 63 years respectively. The mother had convulsions. A brother died of Bright's disease, without convulsions, at the age of 37. Two children of this brother had Bright's disease when four and seven years of age. A second brother died at the age of 29 with convulsions. A third and fourth brother aged 23 and 32 years respectively, have had Bright's disease for six years. A sister, aged 36, has had Bright's disease for five years. A brother aged 26 and a sister, aged 34 have as yet no signs of Bright's disease. A maternal cousin died of undoubted Bright's disease, and other members of the family, belonging to previous generations, died with symptoms which suggest Bright's disease. The patient himself has undoubtedly granular kidney, discovered in August, 1880. An examination of the urine in 1876 revealed no evidences of the disease. There is no gout in the family."

I am now treating a man who came under my care a few weeks ago. He is 63 years of age and complained of pain in his chest, which responded readily to treatment. His family told me that he has for many years been afraid he is going to die of dropsy, because both of his parents died from it, also one brother; he imagined he had dropsy about the lungs and heart

There were some grounds for his fears, as he lost fifteen pounds in weight in a short time. I felt some reluctance in trying to obtain a history from the patient himself, as his family requested me to say or do nothing that would make him think his trouble was serious; but in a short time he came again to consult me, saying he had slept scarcely any the previous night; he was nervous and short of breath. I examined him and found the apex beat in the nipple line, and the second aortic sound accentuated, and a very slight œdema of the ankles which could be determined only by very deep pressure. On inquiring concerning urination, I learned that it was quite frequent; he said that he arose sometimes about ten times during the night and sometimes filled the vessel. I examined his urine and found albumin but did not find any casts. I think this is somewhat in favor of heredity being a predisposing factor in the etiology.

Just a word about alcohol. I treated a man with chronic parenchymatous nephritis who had "drank considerable in his time." I put him in bed and on a milk diet, but he emaciated so noticeably that when the excretion of urine came up to about normal I directed him to get up, and gave him a more liberal diet, eliminating nitrogenous material. I expected him to come to the office occasionally, but he came only once or twice. He asked me if I thought gin would be good for him. I told him no. I missed him for a long time but finally met him on the street one day looking considerably improved, and he told me that he had been drinking gin. That does not prove much, but it at least looks like the juniper was stronger than the alcohol, and in his case alcohol was not very harmful. There is not much proof that these causes which I have mentioned have a great deal of weight, but until we learn more regarding the etiology, we must accept them as causes, and never fail to examine the urine if the patient has been exposed to any of them.

Anesthetics certainly do cause nephritis. We have heard a great deal about the care we must exercise in administering chloro-

form if the patient has a heart lesion; William E. Morgan of Chicago, has kept records of a number of cases covering several years in his own practice, and found that no matter whether chloroform or ether was used, permanent albuminuria resulted in about three per cent of cases. From this, it is very important in taking the history, to learn if the patient has undergone a surgical operation.

Case III. Robert G., age 54 years; retired.

In this case, I did not obtain much of a history, but learned that he was reared in luxury, and had always been a heavy eater; he led an exemplary life; had no bad habits except in eating; his duties were light; he would eat numerous times during the day, and sit around the house reading; taking only very little exercise. He came to me saying that a few days before, he fell and became unconscious in a store, and knew nothing until about two days later, when he regained consciousness and found himself in a hospital; he still felt a little weak and dizzy. On testing voluntary motion, I could discover nothing abnormal except a very slight weakness of the right hand. I interviewed the proprietor of the store in which he was stricken, and from what he said, along with the patient's statements, and the slight weakness of the hands, I concluded that in all probability there was some trouble in the cerebral arteries, and warned him concerning his diet and habits. He followed directions closely for several weeks, reporting occasionally, having no trouble of any kind. He finally fell into his old habits of heavy eating and no exercise. About three months from the time he first consulted me, I was called to his home. I saw him about 8 p. m., Saturday and found him in a semi-stupor. He said his head felt heavy and he didn't feel like going to town that morning. I gave him some calomel and saw him on Sunday, about noon; he said he felt better but I could not see any improvement. After I left him he was seized with a convulsion before I had gone one block from the house. I was not called for several hours, and when I reached him, five hours from

the time the convulsion began, he was unconscious and was keeping up a continuous motion with every limb, and trying to get out of bed. There was no paralysis. Epilepsy suggested itself to me but it was unlike any epileptic seizure I had ever seen; in fact, I had never seen a convulsion just like it. By energetic work I succeeded in getting him to swallow thirty grains of chloral. I then chloroformed him and left him; I returned in about an hour and found him conscious and able to recognize me.

On the following morning (Monday) I obtained some urine, and found it of a high color, acid reaction, specific gravity 1035, and it contained albumin and hyaline casts. There was no accentuation of the aortic second sound. I gave him cathartics and diuretics, and instructed the attendants to push fluids as energetically as they could. Urine was excreted in about normal quantity and his bowels were kept moving freely; still, he did not arouse from his semi-comatose state, and he died on the following Friday, five days and five hours after the convulsion took place. This convulsion did not give a typical picture of apoplexy, epilepsy, or uremia, but the coma and condition of the urine spoke for uremia.

CHRONIC GASTRITIS.*

BY JAS. BRAYSHAW, M. D., BERLIN.

It is not without some hesitation that I undertake to present a paper on this well-known subject; but I feel confident that you will pardon me for my feeble effort when I tell you that it is not my intention to consider it from the standpoint of the specialist, nor to give a complete rehash of the literature; but simply to give a few suggestions for the general practitioner, of whom I am one.

If one is to judge by the results, viz. the number of people we find suffering with this condition, who have been pushed from pillar to post and after trying a number of reputable physicians, drift into

the hands of quacks and charlatans or the habit of indulging in patent nostrums and at last go to a hospital to die, one would think chronic gastritis the *bete noir*, of the general practitioner. I do not think this is so much the fault of our methods as of those whose duty it is to apply them, and those who seek relief, for a large majority who go to a hospital to die, are surprised after a time, to find that they do not die, but are improving.

As stated above, I believe it to be in part the fault of the physician and in part that of the patient that the majority of these people do not get well without going to a hospital. As proof of this, I have, on more occasions than one, been sitting in a physician's office when a patient entered, complaining of symptoms that clearly pointed to some form of gastric disease. The physician, without trying to make a diagnosis of the real trouble, would pour out a bottle of "lime-juice and pepsin" or "wine of pepsin," direct the patient to take a teaspoonful after meals, charge him a dollar and send him home with instructions to return if that did not cure him. On a number of occasions I have poured out a sample of the medicine, with the excuse that I wished to try it, carried it home with me, and was not greatly surprised to find that it contained neither lime-juice, wine of pepsin—not as greatly surprised, indeed, as the physician who does this kind of practice is, when, after a few visits he finds that his patient, who has failed to improve, ceases his visits and either takes to the patent nostrums or drifts into the hands of the charlatan.

In so far I believe the physician was responsible for his failure. But there is a class of patients who quit treatment when temporarily relieved, despite every effort on the part of the physician, and another class who expect to be cured with half a dozen doses of medicine of a disease that has taken months or perhaps years to progress to its first stage. For his failure to cure these classes of patients the physician is not responsible, and we can simply say that the physician who has such patients,

*Read at the Fiftieth Annual Meeting of the Illinois State Medical Society, Springfield, May 16, 1900.

and we all have, is to be pitied. Perhaps the patient, too, is to be pitied.

Diagnosis: For the last century and a half the researches on the stomach have gone on until our present knowledge of its anatomy and chemistry, is such, that we are forced to say there is no class of disease which can be more accurately diagnosed than those of this organ.

The diagnosis cannot be made from the symptoms alone, as they may accompany many abnormal conditions of the stomach. They are, however, of some importance in connection with the cause of the disease and the examination of the stomach contents, for the symptoms of chronic gastritis are so often confused with those of the conditions that cause it, that it is often impossible to draw a definite clinical picture of the affection.

I will borrow the language of Dr. Stockton of Buffalo, N. Y. "The gastric mucous membrane has so much resisting power that it practically ignores insult after insult offered it by dietetic errors, alcohol or other irritants. A few years ago almost every symptom complex of the stomach was at once set down as due to sub-acute or chronic catarrhal gastritis, and even today the profession has not cut loose from this short sighted, erroneous and superficial habit. In point of fact, chronic inflammatory affections of the stomach are not very severe except as a result of grave organic disease located in the stomach or elsewhere. In many chronic diseases; as for instance, the anemias—the stomach is the organ that bears the brunt of the complaint of all the cells of the body, and it is not surprising that it should be chosen to cry out and rebel in the cause of the complaining cells depending upon it; but the point we wish to make is that gastritis exists in but a small proportion of these cases, and if the stomach and its contents are carefully studied there will be less often a hasty diagnosis of one or another form of gastritis."

When a patient calls on a physician and complains of the symptoms which we all recognize as pointing to some form of gastric disease, viz: Impaired appetite,

feeling of distress or oppression or may be actual pain after eating. Pain when the stomach is empty (either trifling or of extreme severity, either localized in the precordial region or below the end of the sternum in the region of the stomach) pain more or less severe on pressure over the stomach. Tongue coated with tip and margin very red. Bad taste in the mouth and stomatitis more or less severe. Increase in the salivary and pharyngeal secretions sometimes causing them to dribble from the mouth. Nausea and vomiting after eating, marked distention of the intestine, eructation of gas, and may be fluids either sweet, sour or bitter are brought up with the gas, constipation or may be diarrhoea, the food passing through as it was eaten, or there may be alternate constipation and diarrhoea. The urine may be scanty, highly colored and of high specific gravity and may deposit urates, or may be clear and of low specific gravity resembling that of chronic nephritis; but does not contain albumen. There is usually headache, indisposition, low spirits and in aggravated cases, melancholia may be developed. Vertigo is frequent, the pulse is slow and there is usually palpitation of the heart—I might call attention to this as being the symptom that most frequently causes the patient to consult a physician—they come with their own diagnosis of heart disease. There may or may not be cough, loss of flesh and an anemic condition.

When the above symptoms or a reasonable number of them are present and there are not others that point to some other organ as the seat of the disease, an examination of the stomach and its contents is clearly indicated. Find out by inflation, auscultation and percussion the exact outlines and capacity of the stomach. Find out by means of the test breakfast and stomach tube its motor power.

It seems a waste of time to describe either the instruments or the technique for examining the stomach, but I cannot miss the opportunity of entering a protest against the use of the tube recommended by Dr. Hemmeter which, "although quite

soft is provided with a sharp chisel like edge around the lower opening" for the purpose of loosening pieces of carcinomatous tissue. I know that such an instrument would be dangerous in my own hands, and believe it would also be in the hands of those more skilled than myself.

One hour after the Ewald breakfast of a roll and water, the stomach should not exceed forty c. c. If it does, its motor power is impaired or there is some other defect in the way of either absorption, or pyloric stenosis may be expected.

We may also say that a stomach with its lower border as low as the umbilicus, its upper border being in the 5th interspace in the left mammary line, is wanting in motor power and we may suspect fermentation. Fermentation and dilatation, one or both, are usually present in chronic gastritis, but chronic gastritis is not always an accompaniment of the two former. Fermentation may be accurately estimated by an apparatus devised by Dr. Kelling of Dresden, and fully described by Dr. Hugh Hamilton in the Transactions of the First Pan-American Medical Congress, Part 11. By this method the gas set free by the fermentation is collected over mercury or other suitable fluid and measured. By this instrument not only the amount but the rapidity of the fermentation is accurately estimated. To estimate the fermentative condition, a portion of the stomach contents is withdrawn after definite meals, in periods of from one to four hours, then the ingesta placed in a bottle and raised to the temperature of the person's body, kept there until fermentative action ceases, or for a given time when the oven into which the bottle has been placed indicated the average proper body temperature of the particular individual, the bottle or flask is connected with Dr. Kelling's apparatus and the amount of gas eliminated from the food mixture read off at designated intervals.

The chemical and microscopical examination of the stomach contents are too well laid down in numerous text books to necessitate even a passing notice in an article like this. We usually find hydrochloric

acid diminished or absent. Total acidity may be increased or diminished. Lactic acid most frequently and other organic acids sometimes present. Mucus is always found in abnormal amounts. We believe food stasis is always present in a more or less marked degree, and without it chronic gastritis except, rarely, as the result of a diseased condition of some other organ, cannot exist. Fermentation is seldom absent and the digestive power of the gastric juice is invariably decreased. So unfailing is this rule, that an examination of the digestive power (which requires but little apparatus, time or skill) when taken in connection with the symptoms, capacity and contents of the stomach, will furnish an indication for treatment that will enable us to avoid many of the errors pointed out above; and would be to the advantage of both the physician and the patient.

Treatment: In the treatment of this condition, I believe that even those who are careful in regard to diagnosis and who cure their patients, are in the habit of failing to reach the prime cause in the most direct route i. e. fail to remove the atonic condition of the stomach walls and consequently fail to permanently remove the inflammation. Whether the atonic condition of the stomach walls be the cause of the gastritis or merely an accompaniment, it matters not, for as long as food stasis remains, just so long will inflammation remain, or if removed, will almost certainly return. Therefore it is essential in the treatment of chronic gastritis that we bring the stomach walls as well as the mucous membrane to as nearly a normal condition as possible. Salicylic acid and sodium benzoate are not to be forgotten in cases of fermentation and nux-vomica and ergot will stimulate secretion and also increase the muscular activity of the stomach walls. The deficiency of gastric juice is to be supplied, not with pepsin, but with hydrochloric acid for pepsinogen is usually present. Intestinal tonics, laxatives and antiseptics are to be given as indicated in the particular case in hand.

These alone are not usually sufficient

and when they do bring about the desired result, their action may be greatly augmented and the course of treatment shortened by the use of certain mechanical appliances. The first of these to be mentioned is the stomach tube which not only cleanses the stomach, but also stimulates the muscular walls.

Another method of treatment may be by the use of abdominal massage. This may be done more or less perfectly with the hands if one is a skilled masseur, or by rolling a metal ball over the abdomen.

One method that I have not seen recommended, but which has given excellent results in my hands as an adjunct is by means of the interrupted and alternating galvanic current passed directly through the stomach walls. The current may be passed through the stomach walls by placing the electrodes on the outside of the abdominal walls back and front or much better by passing a sound into the stomach and placing an electrode over the stomach or the outside of the abdomen and connecting the other with the sound. The treatment is given from two or three hours after a meal and lasts from ten to twenty minutes.

I believe this is better than the positive electricity as recommended by Einhorn and others, as when properly applied it will completely empty the stomach and at the same time stimulate the secretions. As to diet it has been my custom to allow a moderate amount of anything that does not cause distress after eating, but it is sometimes necessary to completely cut off very fat meats, alcohol, condiments of the aromatic kind, hot bread and pastry and restrict many others. This, however, can be best arranged for each individual patient, as there is no disease in which is more nicely illustrated the old saying "What is one man's meat is another man's poison."

It was my intention to report a few cases illustrating the results of what was almost completely mechanical treatment, but have already taken more time than I expected. Will omit them and let each one find his own illustrations.

STERILITY IN THE MALE.*

BY EMIL RIES, M. D., CHICAGO,
Professor of Gynecology, Post-Graduate Medical School.

When a husband and wife who desire a family find themselves without offspring after some time of married life, as a rule the wife is urged to seek medical advice. The physician whom she consults is frequently, all too frequently, satisfied with making a gynecological examination. He makes his diagnosis and arranges his treatment according to the data furnished by such an examination, which reveals to him a more or less likely cause of the sterility. Such a procedure is always unscientific and frequently the cause of much unnecessary suffering. For what is the use of treating the wife for sterility if nothing is known concerning the condition of the reproductive organs of the male?

The result of a number of careful clinical as well as pathological investigations have proven the male to be the cause of sterility of matrimony in over 30 per cent of all sterile matrimones, and this fact alone suffices to discredit all attempts at treatment of the female alone in cases of sterility, unless it is determined that the male is in full possession of normal organs with normal secretions.

The sterility of the male may be of two different kinds—it may be due to impotentia coeundi or to impotentia generandi, to an inability to perform the sexual act, or to a lack of normal secretion.

The discussion will be limited here to the latter of these defects, to the impotentia generandi, and more especially one kind of this species.—Under the head of impotentia generandi two conditions are to be classified, the one being aspermia, the absence of discharge in the sexual act, the other being the more frequent and more important condition of azoospermia. I shall discuss here only the latter.

The condition of azoospermia is characterized by the discharge of a fluid in the sexual act which, though absolutely like

*Read at the Fiftieth Annual Meeting of the Illinois State Medical Society, Springfield, May 16, 1900.

the normal fluid in color, consistency, odor, and quantity, differs from it by the lack of the most essential factor, the spermatozoon. It is perhaps not superfluous to emphasize the fact that nothing but a microscopic examination of the fluid can enable us to make a differential diagnosis between the normal and the sterile semen.

We are sufficiently well informed as to the frequency of this condition of azoospermia as a consequence of various morbid conditions. After bilateral epididymitis the combined statistics of Gosselin, Godard, Liegeois, Terrillon, Bergh, Neisser, Noeggerath, Kehrner, Lier and Ascher, as collected by Finger,¹ show azoospermia in 207 out of 242 cases. Recent investigations of Benzler,² however, are more favorable. In his cases only 38.7 per cent were sterile, whereas the rest had offspring. Other diseases which are regarded as important in the etiology of azoospermia are diseases of the testicle, as chronic inflammation, tuberculosis, syphilis, tumors, congenital displacements, traumatism; furthermore, chronic diseases, as alcoholism, obesity, diabetes, general tuberculosis, and to some extent and for a shorter or longer period of time acute febrile diseases.

The facts just mentioned are pretty generally accepted, but the local conditions in the sexual apparatus which are the direct causes of the azoospermia are still little known. The text-books contain very little information on this point, and what little they do contain but too frequently appears copied from generation to generation, and some of the statements are *prima facie* improbabilities.

Under these circumstances I thought it necessary to start a series of investigations of my own. Through the kindness of Prof. Ludvig Hektoen, of Rush Medical College, I have received for examination the sexual organs of one hundred males. I wish to avail myself of this occasion for a public expression of my best thanks to Professor Hektoen, without whose aid it would have been impossible to obtain the necessary material for such an investigation.

The organs were taken from a series of

post-mortems without special selection of the cases, in order to reach an approximate idea of the frequency of azoospermia and its pathology in the general run of cases. Taking into account how unreliable the statements of most patients concerning former infections are, I have paid no attention whatever to their histories, and have relied exclusively on the pathological data, as they cannot lie. The post-mortems were all performed by Professor Hektoen or by his assistants, and the painstaking and thorough methods of these gentlemen have placed the pathologic diagnosis beyond doubt.

In the pathology of azoospermia two great classes are to be differentiated, one comprising the azoospermia due to lack of production of spermatozoa, the other comprising the azoospermia due to the obstruction of the system of sperm channels. I shall consider the latter of these two classes first.

Obstruction of the sperm channels has never been observed anatomically in the tubuli recti, in the rete Halleri in the vasa efferentia and the coni vasculosi, but from here on in every portion of the sperm channels, the tail of the epididymis, the vas deferens, the ampulla, the seminal vesicle, the ejaculatory duct. An obstruction can be caused, as in every hollow organ, either by compression from without or by loss of epithelium and obliteration from within.

Since 1847, when Gosselin³ gave his first report, the compression from without has usually been represented as the most important mechanical obstruction in the way of the seminal flow. But aside from Gosselin's own observations, which were made with the help of injections and which are open to serious objections, no proof has ever come forward in favor of this theory. And when we take into consideration the strength and rigidity of the muscular wall of the seminal channel in the tail of the epididymis, its natural coiled up condition, and especially the possible and probable sources of error in experiments with injection, it appears more and more likely that this theory, though hoary with age, is

nevertheless untenable because anatomically unproven. Not until the compression from without produced by the well known thickening of the tail of the epididymis, the remnant of an acute epididymitis, has been proven anatomically to produce obstruction can we consider this theory well established.

It is, of course, an entirely different matter when we have to deal with a tubercular or gummatous destruction of an entire portion of the vas deferens together with its cavity. Here we have obstruction, but the obstruction is produced less by a compression from without than by the discontinuity of the epithelial tube.

The interruption of continuity of the epithelial channel of the vas deferens is a most potent and not at all infrequent factor in the production of azoospermia, as my own observations as well as those of Simmonds⁴ have proven. These obliterations of the vas deferens are actually observed and are so readily demonstrated that it appears remarkable that they should not have been recognized long ago as the true cause of obstruction in the vas deferens, in the place of the compression from without which has been handed down from author to author and has been accepted without controversy.

The complete stages of this obliteration show a vas deferens which is composed only of the external and middle muscular coats, while the mucosa, and frequently also the internal longitudinal muscular coat, are transformed into a mass of cicatricial connective tissue without a trace of epithelium. In two males in whom I found such complete obliteration, the findings in the other parts of the sexual apparatus warranted the diagnosis of tuberculosis in one and of syphilis in the other case. In two additional cases in which such occlusions were found, neither syphilis nor tuberculosis could be demonstrated. The stages preceding complete obliteration I have repeatedly had occasion to observe. In the more advanced stage the epithelial lining is defective, the cells being very small, more like endothelium, and not

standing in two rows as they normally are. The lumen of the canal also shows changes, being transformed into a narrow and often twisted and distorted cleft. In other cases the epithelial lining is almost or entirely perfect, but the wall just outside the epithelial lining shows complete absence of the normal tissue of the mucosa, and instead of that a ring of hyaline tissue poor in nuclei and forming a rigid layer under the epithelial lining. We have to deal, then, with strictures of the vas deferens, or merely with changes in the wall apt to disturb the normal function.

In the portion of the vas deferens where it joins the seminal vesicle we find normally an enlargement of the size of the vas and of its lumen. This portion, the so-called ampulla of the vas deferens, may be completely occluded, as I have observed in two cases, so that a cross-section, instead of showing the numerous epithelial sinuses, shows nothing but a mass of fibrous cicatricial tissue in a ring of muscular bundles. Sometimes remnants of the normal glands are seen detached in the wall of the ampulla, slightly dilated, but without any communication with the vas deferens, and therefore never containing spermatozoa. In another number of cases the same hyaline zone which has been described in the vas deferens has been observed surrounding the epithelial lining of the ampulla.

Obliteration of the seminal vesicle in itself does not mean any direct obstruction to the flow of the semen from the testicle to the urethra, as the semen might pass on directly from the vas deferens into the ampulla, into the ejaculatory duct and the urethra. But from physiological experiments of Rehfisch⁵ and others it is likely that obliteration as well as removal of the seminal vesicles interferes seriously with the normal function. I have observed total or partial obliteration of the seminal vesicle in three cases. In other cases I have found the hyaline degeneration of the wall of the seminal vesicles which corresponds to the same process in the vas deferens, and may be the anatomic explanation of cases of spermatorrhea, the seminal vesicles losing

by the hyaline degeneration their normal ability to expand with the increasing amount of their contents.

The next portion of the channel through which the semen has to pass is the ejaculatory duct, which is embedded in the tissue of the prostate. Finger⁶ has claimed to have observed cases of obstruction by obliteration of this part of the channel by the formation of scar tissue following posterior urethritis with small abscesses of the prostate. But his descriptions must on closer examination appear very unsatisfactory and doubtful, though they are much repeated in his own writings and much quoted by other authors who have never themselves seen such obstructions. The objections which I have myself been compelled to raise against Finger's statements are the following:

1. In his macroscopic descriptions he mentions the presence of areas of cicatricial tissue on the colliculus seminalis by which the openings of the ejaculatory ducts have become occluded. In his microscopic descriptions, however, it is just the orifices of the ducts which are not obstructed, whereas the deeper parts show an apparent obliteration.

2. Finger does not say anywhere that he has examined the prostates, which form his material, on series of sections. It is true that sections may show the orifices of the ducts, also the more distant parts of the ducts and an apparent obliteration between the two. But unless the prostate gland has been cut in complete series of sections, it is absolutely impossible to state whether the duct really is obliterated or whether its course follows such a curve that parts of it which are contained in one section do not appear in other sections at all. I may mention here that I have examined every one of the prostates with ejaculatory ducts, which form my material, on complete series of sections—about three hundred sections to each of the ten prostates examined.

3. As proof of the obstruction to the seminal flow Finger mentions furthermore that in the cases which he believes to have

found obliterated he has observed the ejaculatory ducts filled with spermatozoa. I have examined ten prostates, in none of which the orifices of the ejaculatory ducts were occluded, and in every case where the testicles produced spermatozoa the ejaculatory ducts contained them in larger or smaller numbers, so that this appears to be a normal condition of the dead prostate.

4. Finger's statement that he found the ducts dilated behind what he believed to be an obliteration is worthless, because this dilatation also is a normal condition due to some terminal or post-mortal processes which fill the ejaculatory ducts with spermatozoa.

The tissue surrounding the ejaculatory ducts has been found sclerosed, poor in nuclei, undergoing hyaline degeneration, by Finger,⁶ myself, and others, but it is not probable that this alone is sufficient to give rise to an obstruction of the flow of semen. In my anatomical observations at least these hyaline ducts were filled with semen just as well as the normal ones.

It is possible that the ducts being embedded in the non-yielding, firm tissue of the prostate may be compressed from without by the formation of tumors of cystic or adenomatous or fibroid or mixed nature, or by abscesses of the prostate. I have observed both abscesses and tumors of the prostate, but none of them produced a sufficient compression of the ducts to give rise to obstruction.

The obstructions farther on in the male sexual tract, though important for the question of sterility in the male, do not come under consideration here as they do not produce azoospermia. The obstructions which are anatomically demonstrated to be productive of azoospermia are those of the vas deferens in its various portions down to the ampulla, and of the seminal vesicles.

As to the etiology of these obstructions and the stages preceding them, the structure of some of the most pronounced cases characterizes them sufficiently as tubercular. In other cases, however, their origin is less clear. But as the changes are of a chronic, not of an acute, nature, as they

correspond to chronic changes produced by infections in other organs, there is little doubt that we have to attribute them to a similar causative factor. Taking into consideration the frequency of inflammatory affection of the vas deferens in gonorrhea and the absence of characteristics of any other infection in these cases, we are probably not far from the truth if we assume that these cases are due to gonorrheal infection. But it would be going too far to classify them all as gonorrheal cases, as other infections appear to be able to produce similar pathologic conditions. In the absence of bacteriologic investigation of these cases I do not wish to go further into this question.

Now an interesting question in physiology has to be raised. We know that usually, when the normally present excretory duct of a gland is obliterated, this gland undergoes speedy degeneration, and we know from experimental as well as pathologic data that this holds true in glandular organs generally. The testicle makes a most remarkable exception in this regard. It has been demonstrated experimentally that after artificial obliteration of the vas deferens, produced by cutting and ligating the duct, the testicle does not always undergo atrophy. My pathologic observations as well as those of other observers, especially Simmonds,⁴ proved this to hold good also in cases of pathologic obliterations of the vas deferens. With the exception of the case of syphilis, where the testicle was also destroyed by the disease, all of my cases of obliteration of any portion of the vas deferens presented normal function of the testicles with enormous quantities of spermatozoa in the portions of the seminal channel located between testicle and obliteration. Even macroscopically it could be observed that these portions of the vas deferens were dilated by a thick, whitish mass. If the physician keeps these observations in mind, he will find himself able to diagnose this condition of obstruction on the living subject, a point of the greatest importance with regard to a possible operative treatment and cure of these obliterations.

Ever since Gosselin's first publications the obstruction of the seminal channels has received the largest share of the attention of investigators, and the condition of the testicle itself has more or less been neglected. This may be due to the fact that the pathology of the testicle is so extremely difficult and complicated that what some authors consider normal senile changes, others ascribe to syphilis or smallpox, and others again to chronic general diseases or to local inflammatory disturbances.

So much, however, becomes evident, as soon as any number of testicles is examined, that deviations from the normal are extremely frequent. Another condition which makes the pathology of the testicle especially difficult in a consideration of the testicular origin of azoospermia is the fact that the seminiferous tubules show a great independence of each other, so that one tubule may present complete atrophy while neighboring tubules may be in the most florid and active condition. It is therefore necessary to examine many sections from many different parts of the organ before passing judgment on the physiological abilities of the gland. This necessity implies a very large amount of work, so that so far I have been obliged to examine more than 15,000 sections.

Without going too much into the minute details of the pathology of the testicle, I may state that there are two great classes of suspended or destroyed spermatogenesis, that with and that without associated symptoms in the connective tissue surrounding the seminiferous tubules. At the present stage of our knowledge of human physiology we can speak only of arrested or suspended spermatogenesis as long as we find any normal spermatogonia. Not until these too have disappeared and the sustentacular cells are the only remnants of the epithelial lining of the seminiferous tubules have we any right to assume complete and definite destruction of spermatogenesis.

In the small series of cases in which I have found aspermatogenesis without

changes of the surrounding connective tissue, this lack of normal action in the testicle is in all cases a partial one, so that some portions of the testicle show normal activity while other portions show considerable changes of the epithelial lining. The pathologic tubules then present either a single layer of epithelium composed of spermatogonia and sustentacular cells, or in cases further advanced even the spermatogonia have disappeared and nothing but sustentacular cells are left. While in the other tubules all developmental stages of the spermatozoa can be observed, these pathologic tubules present not a trace of spermatozoa or even spermatocysts or spermatoblasts. Similar observations have been made by Cordes,⁷ but unfortunately his report becomes entirely inadequate just at this most important point, because he says nothing definite as to the changes in the surrounding connective tissue, which he mentions only casually. It is true that similar changes occur with and without changes in the surrounding connective tissue; still there are marked differences, and certain types of aspermatogenesis which occur frequently with changes of the connective tissue never are observed without these. Cordes has not separated the two in his report, and this mars the usefulness of his otherwise meritorious work for this particular part of the question.

The infiltration with fat which occurs in cases of suspended spermatogenesis without changes in the connective tissue, and which, as I may anticipate here, occurs also in cases associated with changes in the connective tissue, is frequent and often very marked. The observations of Cordes are very positive on this point and give clear evidence of the physiological occurrence of fat infiltration in the epithelium of the testicle. The amount, however, which is found in these cases can hardly be considered normal, as in many cases it amounts practically to a complete disappearance of the cells protoplasm of the testicular epithelium.

Neither age nor the disease to which the patient has succumbed appears to have any

influence on the production of aspermatogenesis without changes in the surrounding connective tissue. This condition has been observed in individuals as young as 24 and as old as 53 years, these men having died from various acute or chronic diseases. It is therefore not clear what is the cause of this aspermatogenesis in these cases.

In the second and much larger class of cases we find as the one pathologic lesion common to all cases of this kind the changes in the surrounding connective tissue. The most marked of these is the formation of a zone of hyaline tissue around the seminiferous tubules in the place of the normal flat connective tissue cells which form the physiologic sheath of the tubules. This zone of hyaline tissue cuts off the epithelium from its supply of nourishment, normally derived from the blood-vessels of the intertubular connective tissue. Its size varies from a scarcely noticeable thin line to a thick band, which by and by usurps the place of the entire seminiferous tubule.

Degenerative changes of the epithelium accompany the formation of the hyaline rings. In some specimens all of these changes occur simultaneously, in others only certain stages are present. Where the hyaline zone is thin we find the epithelium of the tubule either normal, even containing spermatozoa, or the spermatozoa are absent and we find only a few layers of epithelium, or even only one layer, the border-lines between the cells frequently becoming indistinct. There is, however, a distinct cavity of the tubule which is sometimes filled with spermatozoa. With the enlargement of the hyaline zone the epithelial masses are pushed toward the center of the tubule, which appears narrowed, the epithelium itself appears lower, the nuclei become indistinct and may disappear completely. With the further encroachment of the hyaline zone the epithelium is reduced to a very thin, flat layer resembling endothelium and these tubules contain nothing but a few fragments of cells. The advancing

hyaline zone becomes folded and wavy, resembling somewhat the hyaline zone of the corpus luteum of the ovary in its later stages. In the most pronounced cases the lumen of the tubule disappears completely, and instead of a channel lined with epithelium nothing is seen but a more or less wavy and hyaline mass of tissue with very few nuclei, without any trace of the normal testicular epithelium.

These degenerative changes may occur in small portions of a testicle which in other portions contains normally active tubules, but they may also occupy an entire testicle, so that not a trace of normal epithelium is to be found. I have tried to make sure whether a testicle which does not present any acute inflammatory changes can present complete destruction of its epithelium by the hyaline degeneration of the interstitial tissue. I have examined one testicle, for instance, on more than 500 sections without finding one single epithelial duct, and from many testicles 200 and 300 sections have been examined with a similar result. It becomes evident, therefore, that without any obstruction in the vas deferens azoospermia may occur by complete destruction of testicular epithelium and without discoverable syphilitic or tubercular disease. For just those cases which presented the most complete atrophy of the testicular epithelium gave no anatomic evidence of the nature of the process which had worked such destruction. Frequently the rest of the sexual apparatus was found absolutely normal, the epithelium of the epididymis perfect, the vas deferens open—no acute inflammatory changes anywhere.

The only other changes which now and then were found associated with the epithelial destruction were of an endarteritic nature, but were not observed regularly by any means. It is important to notice that where this atrophy did not comprise the entire testicle, but only parts of it, it did not appear in disseminated patches, but followed the individual seminiferous tubule in its entire extent from the albuginea to the hilus of the testis. It is therefore not

probable that this atrophy is due to small-pox, for while it is well known, since the work of Chiari,³ that the orchitis of small-pox occurs in patches, it is also known that these patches are roundish, in the shape of small abscesses, rather than in the shape of stripes following the seminiferous tubules. It becomes also clear that these atrophic changes cannot be due to syphilitic vascular changes exclusively, because they so frequently are found to affect one or the other seminiferous tubule only, whereas interference with the vascular supply due to syphilis could not but afflict more than one tubule, a conclusion which is warranted by the normal anatomy of the testicular vascularization.

It is perhaps necessary to mention that the rete Halleri, the vasa efferentia, and the epididymis have been found absolutely normal in most of these cases; but the vas deferens or the seminal vesicles frequently showed hyaline degeneration of their walls associated with the hyaline zone present in the testicle. It is therefore more likely that the same process which led to this chronic affection of the vas deferens also affected some, or many, or all of the seminiferous tubules, reaching them not on the path of the circulating blood, but along the vas deferens—in other words, an infection which usually creeps along the mucous surfaces, very likely gonorrhea.

It is evident that the larger the reduction in size of the active seminiferous tubules, the greater the possibility of interruption of normal spermatogenesis, and the more probable a condition of diminished numbers of spermatozoa or oligospermia. Here also we find the anatomic basis of the clinical observation that when no spermatozoa can be found in the semen in the first specimen it is necessary to examine repeatedly in order to form a correct idea of the physiological abilities of the testicles.

The condition described here is most frequently bilateral, but may be more pronounced on one side than on the other. Both testicles may present complete

atrophy due to this condition. Wherever this condition occurs, it can be recognized macroscopically, not necessarily by the size or consistency of the testicle, but by the whitish, homogeneous stripes on the cut surface of the organ.

Fuerbringer,⁹ the father of the scientific interpretation of these conditions, has advanced our therapeutic ideals by introducing the plan of the surgical investigation of the testicle and its excretory ducts. He has advised in certain cases to lay bare and excise the epididymis in order to investigate its contents. In a case of an obliteration of the vas deferens surgical interference does not appear hopeless. Experimental anastomosis of divided ends of the vas deferens has been practiced successfully on the dog by Van Hook.¹⁰ It has been practiced on the human being after the unintentional division of the vas deferens in hernia operations, but the success in these cases is of course much harder to prove.

If no dilatation of the vas deferens or the epididymis indicative of an obliteration is found, it would be correct to split the testicle and examine its cut surface; also to examine some testicular juice squeezed out from the cut surface. The uncertainty, which is the worst torture of patients afflicted with these troubles, can thereby be settled one way or the other in the most reliable manner possible. Suture of the split testicle is neither difficult nor dangerous.

Cases of azoospermia due to obstructions in some part of the vas deferens are much more hopeful and much more amenable to our treatment than azoospermia of testicular origin. This much the crude outlines of the results of my investigations presented here are, I hope, well able to demonstrate. And if we can help only a few of the unfortunates afflicted with this kind of sterility, we shall have made another advance in the scientific treatment of a hitherto much neglected and little understood pathologic condition.

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DISCUSSION.

DR. WELLER VAN HOOK, Chicago: I think it would be feasible, in cases of accidental transverse incision through the vas deferens, to reunite the vas deferens by the method which was described by myself some years ago, but such a case has not come under my observation. I think it would be possible also, in cases of stricture of the vas deferens, to remove a portion of the vas deferens and re-unite it. No doubt, also, in very short strictures of the vas deferens, it might be possible to apply to that duct the method which we apply to the ureter and other ducts, a method similar to the Heinicke-Mikulicz, for increasing the diameter of the tube at the affected part.

I wish to say, in concluding these brief remarks, that I believe the pathology and surgery of the vas deferens have only begun to be studied, and that the possibilities in the way of overcoming azoospermia from obstruction of the duct have scarcely been considered.

THE SPANISH-AMERICAN WAR AS SEEN BY THE MILITARY SURGEON.*

BY ALLEN A. WESLEY, A. B., M. D., CHICAGO.
Late Major and Surgeon, U. S. V. I.

Gentlemen:—I confess that I am profoundly grateful for the privilege of presenting to this eminent body some of the experiences which I had in the Spanish-American War, while serving as Major and Surgeon of the Eighth Illinois Volunteers—the only Negro regiment in the service which was officered by men of that race.

Twenty-four hours after the Governor issued his second call the Eighth and Ninth regiments were in Camp Tanner at Springfield.

The candidates who successfully passed the examination given by the Medical Board were assigned in this way:

Eighth Infantry—Surgeon, A. A. Wesley. Assistant Surgeons, E. S. Miller and J. W. Curtis.

Ninth Infantry—Surgeon, Andy Hall. Assistant Surgeons, W. R. Washburn and W. G. Gregory.

*Read at the Meeting of the Military Surgeons of Illinois, Chicago, April 10, 1900.

The surgeons assigned to these regiments now formed the Medical Board which gave the recruits their final examination. The men of the Ninth were examined first; the southern part of the state had sent up some beautiful specimens of physical development, and the rejections were very few. The Eighth also had some fine physiques. One company boasted that it did not have a man less than six feet in height, and five feet six or eight inches was the rule throughout. Broad chests, strong hearts and powerful muscles were these men's inheritance.

While at Springfield the most important diseases with which we were engaged were rubeola and pneumônia. The measles was brought to us by the company from Cairo, Ill., where the disease was then prevailing. These cases were placed in isolated tents, and after recovery were bathed and oiled before being sent to their quarters. The disease was thus stamped out. We had several cases of pneumonia, the most severe of which—through the courtesy of Col. G. N. Kreider—were placed in the St. John's Hospital, where they made a speedy recovery under the cold treatment.

Col. J. R. Marshall was sworn in July 23, and Illinois stood as the pioneer State in giving the black man the right to do and die for his country with "straps" on his shoulders. During the brief interval when we were neither in State nor Government service, Gov. Tanner proved his friendship by doing much to make both regiments comfortable. Mrs. Tanner also daily visited the hospitals, and from her own purse made many purchases for the sick.

I selected two suitable men from each company of the Eighth and had them detailed for special hospital duty. This gave me 24 men for my corps, aside from the three hospital stewards. I retained this system throughout the campaign, increasing the quota when necessary.

The immediate cause of our going to the front was the fact that the drenching diurnal tropical rains and the dreadful Cuban fevers had begun to decimate the ranks of all the United States forces located in and around Santiago. Among

these were the brave boys of the First Illinois Volunteers, to relieve whom Governor Tanner suggested that the Eighth Illinois be sent, and he requested Colonel Marshall to get from the regiment an expression on this point. Every man said: "I will go." The war department then ordered us to leave Springfield for New York, there to embark for Cuba on the transport Yale.

Amid the rejoicing and excitement I applied to the mustering officer, Major Ballou, for medicines. His instructions from Washington were that it would be unnecessary to purchase any medicines in Springfield, as I would be furnished ample supplies in New York. I stated that I did not wish to be responsible for moving 1,300 men without medicines, and that if he would give me a letter relieving me of such responsibility, I would be satisfied. Instead of giving me a letter, however, he O. K.'d a requisition which I made. Thus was furnished the only medicine we had until we arrived in Cuba.

We left Springfield August 8, 1898, in four sections. So great was the desire to go to war that nineteen men followed us to Cuba and enlisted there. On our journey to New York, while one of the rear sections was passing over a trestle, a private (celebrating the fact that we were going to war) fell off the train and into a ravine. As the following section was passing over the trestle the soldier was seen below, lying on the ground, which fact was reported to Major F. A. Denison, in command. He ordered the train backed up to get the remains. Four men were sent to bring up the body. As they were about to lift it up, to their surprise they discovered that the soldier was only asleep. On examination it was found that he had merely sustained a few scratches about the body, and a slightly sprained ankle.

After our arrival in New York I boarded the Yale as soon as possible, and found no person who could say more than that he knew that all supplies for the Eighth had been put aboard—but where? Here was a boat one-tenth of a mile long, and when one started down the hold it

suggested a trip on an elevator of a Chicago building from the sixteenth story to the ground floor. It so happened that the quartermaster supplies, commissary supplies and medical supplies for the army in Cuba—as well as supplies for the Eighth Illinois, the rations for the fifty-one male nurses, and the regular provisions for the passengers and the crew—were on this boat. Looking for anything in one of the holds was like searching Pandora's box—all blessings gone but hope.

Shortly after boarding ship several telegrams came from Washington, asking if I had received the medical chests sent me. Inquiry revealed nothing but a general impression that they had been put aboard, and I answered the messages accordingly. In the meantime Lieutenant White, of the Seventh Illinois, had placed in my charge a number of immune male nurses going to Santiago to attend the yellow fever patients. In two and a half hours after boarding the Yale we were out in the stream. During this short time I had to dispose of my sick both ashore and aboard. I had to go to a telegraph office, find my supplies if possible, look after the fifty-one male nurses before alluded to, and perform other immediate duties. Had it not been for the chief of police, who sent me ambulances, some of my sick would have been left on the wharf. It seems to me that some officer of the government should have superintended the loading of all supplies—retaining a diagram or memorandum of what each hold contained—and that such responsible officer should have met us at the boat, prepared to give us any desired or necessary information. As it was, my supplies were not found for several days after we reached Cuba, and one medical chest we never received. We only had what medicines I managed to bring with me from Springfield. The rations for the fifty-one male nurses were never found, and I made arrangements with the steward for their food. All things considered, I fully realized that the government was ill-prepared for war from the standpoint of transport service. The Yale (formerly the City of Paris) was a

magnificent passenger carrier, but a very poor transport, as the deck was the only place for the soldiers, no matter what the weather might be. There was no proper place for hospital, drug-room, or "sick-call."

On August 15th we steamed into beautiful Guantanamo Bay, and passed the spot where fell John Blair Gibbs, the first American medical officer shot and killed in the Spanish-American war. Here we learned that the blockade had been raised, and that hostilities had ceased. With this information the dream of the surgeon vanished. Only the night before in slumber had he been surrounded by many patients, the different cavities and structures of whose bodies had been pierced by Mauser bullets. In dreams he had been busy examining and recording the effects of these bullets on tissue and bone, and had been carefully inserting Senn's bone plates, or the Murphy button, or using Maunsell's invagination method of suturing the intestines. He was still dreaming; but with the words "The war is over" he awoke and realized that—

"There is never a dream of pleasure
But the waking makes us sad."

However, after awaking, it dawned upon him that Medicine must take the place of Surgery, and that if the regiment were to remain in Cuba for any length of time, the men would have to meet a more deadly and potential force than the Mauser bullet—that is, the yellow fever germ, reinforced by its cohorts, the plasmodia malariae.

After a short stay in the Bay we steamed out along the coast, where the mountains rolled in successive ascending ridges until lost in the mists and the clouds. Those wrinkled hills, the silent monuments of Cuban valor, stood out in all their grandeur and seemed to welcome us. That evening we anchored off Morro Castle, and the next afternoon we landed at Santiago, having passed the vessel upon which were the sick and convalescent of the First Illinois. When they learned that we were the Eighth, cheer after cheer broke over the Bay, and the reverberating hills caught

up the salutation, echoing and reëchoing the mutual greeting.

"We cordially greeted each other,
In the old, familiar tone;
But I thought, though I did not say it,
'How pale and weak they have grown.' "

Before disembarking I had ordered Sergeant Rantus of F Company taken to the Nautical Club Hospital. Leaving Springfield as a malarial fever convalescent, he had done nicely on the voyage, but had arrived at Santiago in no condition to march and camp out. Next day he did well, but a few days later information came that he had the yellow fever and had been sent to the yellow fever hospital across the bay. Here he was refused admission on the ground that he did not have yellow fever, and was returned to the Nautical Club Hospital. In a few days he was again sent to the yellow fever hospital, and this time he was admitted—perhaps out of sympathy. The man recovered, did service, and came home with us.

This case illustrates that the medical profession (as represented at Santiago) differed as to what constituted a case of yellow fever. Some physicians seemed to rely wholly upon the presence of albumen in the urine in connection with the symptoms of an intermittent fever. Others maintained that there was no such thing as yellow fever, and that all so-called yellow fever was malarial in origin. Still others there were who insisted that all Cuban fevers were yellow fever. And still another class claimed that these fevers were antithetical; that is, that malarial fever was a preventive of yellow fever, and vice versa. Such seemed to be the status of medical opinion concerning yellow fever upon my arrival.

On the morning of August 17th, as I was on the way to the "Palace," I heard a man shouting "Loose!" "Loose!" in the street. Astonished, I turned to inquire what was the matter—and then for the first time felt what it means to be in a country whose people speak a language that differs from one's own. I afterward learned that the man had oil for sale, and

was shouting the Spanish word "luz," meaning light.

Arriving at the Palace, or Headquarters, I reported to the Chief Surgeon, Colonel V. Havard, a very superior man. In the midst of a great rush he endorsed my requisition and took my papers—thus relieving me of the nurses that were in my charge. Three days later our command was ordered to relieve the First United States Infantry at San Luis. Here we encamped on a hill two miles from town, but heavy rains caused us to move into the village, where the greater portion of the troops were placed in an old Spanish arsenal that had recently been fitted up, the remainder occupying sheds that were originally built for Spanish soldiers. These sheds were very large and well thatched with palm leaves, which effectually turned the rays of the sun and kept out the driving rains. Subsequently the somewhat crowded condition of the troops in the arsenal was relieved by placing a portion of them in tents. Thus we had—during the latter part of the rainy season—some of the men in the house, others in sheds and still others in tents. If my memory is correct, the statistical record of the health of the troops (after the crowded condition was relieved) showed that those troops in the house did best; the next best were those in the sheds, and then those in the tents. However, the latter troops did very well—the tents having raised board floors and beds three feet above the ground. After the buildings that were previously used by the Spaniards as a hospital had been thoroughly cleaned and fumigated—blankets and linens being burned—I established my hospital therein, putting in about thirty beds. Shortly after this the Twenty-third Kansas (847 men) was brigaded with us, and General E. P. Ewers placed me in command of the medical department of all troops then present—the Eighth Illinois, the Twenty-third Kansas, the Signal Corps and the Pack Train. My assistants, aside from those in the Eighth Illinois already mentioned, were Dr. F. D. G. Harvey and Dr. C. Sunday, of the Twenty-third Kansas, and the Contract Surgeons, L. B. Blunt, W. C. Warms-

ley and I. P. Agostine. The number of beds was gradually increased to ninety. "Sick call" was placed under the medical officers of the respective commands, at the temporary field hospitals. The seriously sick and those requiring operation were brought to the hospital buildings in the city, after the manner of the Division Hospital of Colonel A. C. Girard.

In regard to the health of the troops, one of the first things which attracted my attention was the fact that the American soldier who drank rum almost invariably came down with fever. The rum seemed to lower his vitality to such an extent that the red blood cells became fruitful culture media for the malarial hæmatozoön, or plasmodium. General Ewers closed many saloons, and ordered those remaining open to sell no liquor to soldiers, under penalty of being immediately and permanently treated likewise. To a great degree this prevented an increase of fever cases.

The ration of our soldiers was generous, nutritious and varied. Three things favored us: First, we had a number of excellent cooks with us—men who knew how to make nutritious and palatable dishes from the most simple materials. Second, the majority of the men were not connoisseurs of the culinary products of a Delmonico, many of them having been daily patrons of the migratory Chicago restaurants. Third, the men were of powerful physique and hardy constitution. The clothing and foot-gear were all that could be asked, but I believe the campaign hat might have been supplanted by the cork helmet to very great advantage.

The men were ordered to eat and drink only that which the United States furnished them, and were especially warned to keep away from fruit. Being but children of a larger growth, this caused some of them to eat it more freely at every opportunity. The wisdom of the order, however, was proved by the fact that the disobedient quickly and invariably found their way into the hospital.

MALARIA.

At San Luis the first disease encountered

was malaria, of which we handled more than two thousand cases. We had mostly to do with the benign, tertian and quartan types. Very frequently in this disease we were called upon to note the unexpected symptom, slow pulse, in connection with rise of temperature. A very interesting case was that of a young man of rather robust habit, who had been in good health, but who was suddenly stricken with a profuse epistaxis, which resisted all kinds of local treatment. After a few days it was noticed that the hemorrhage was most profuse daily about 10 a. m. (sometimes slight in the afternoon,) and was accompanied by rise of temperature. Malaria was suspected. Consulting all the authorities I had, the only clue found was in Dr. Manson's very superior work on Tropical Diseases. He stated that this might happen in malarial cachexia. This man was not cachectic, but the reverse. However, he was given large doses of quinine and mineral acid, which stopped both the fever and hemorrhage. This—with other similar cases of malaria—leads me to believe that hemorrhages from the Schneiderian membrane may occur coincident with the paroxysm, even in sthenic cases. The same condition also obtained in the bowel, and (not giving the pathology) I am of the opinion that the malarial germ will attack any mucous membrane and cause hemorrhage under certain conditions.

One afternoon there was brought to the hospital a private, unconscious, with stertorous breathing; cold, clammy skin; pulse, subnormal; axillary temperature, 97. No intelligent history could be obtained, as he had not been sick. We did what we could for him, but he never regained consciousness. Not long after this a somewhat similar case was brought in. Rectum was washed out and forty grains of quinine in hot slightly acid solution was injected per rectum. The patient was wrapped in blankets with hot water bottles; in thirty minutes he was sweating, and soon thereafter regained consciousness. We then again washed out the rectum, put him on quinine, iron and arsenic, and he made an uneventful recovery without any more

paroxysms. In the next case of this kind I used the hypodermic in combination with the rectal injection. Results good. We had any number of cases in which there was only one paroxysm, with subnormal pulse. Very much like yellow fever, is it not? We had several cases of dysentery, with bloody stools, the hemorrhage being most severe when the fever was highest. All remedies failed to effect a cure until quinine, iron and mineral acid were given.

The transitional periods—that is, the time of the year when it changes from the rainy to the dry season (or vice versa) were apparently the worst parts of the year for malarial fever.

SCREW WORM.

In another case the eggs were deposited upon a wound in the scrotum. The larvæ burrowed up through the fascia lata and between the internal and external oblique muscles. The whole tract had to be thoroughly opened and carefully cleaned out before the patient began to recover.

SINKS.

Regarding camp sanitation, there was much difference of opinion among inspecting officers—one countermanning what another had ordered. For instance, one would say: "Your sinks are entirely too far away; locate them only a short distance from the companies." Then another would say: "Your sinks are entirely too close." In my opinion there are many things that may modify the proper location, distance and depth of sinks—as permanency of hospital structures, climate, character of soil, etc. The hospital structures in San Luis were permanent and were surrounded by a small area of ground; the sink was a short distance from the buildings, and much deeper than those in the field. I thought this better than having the yard fenestrated with shallow cesspools of infection, and Capt. R. S. Woodson, Medical Inspector of the Department—than whom one would not wish to meet a more affable, efficient and impartial judge—agreed with me.

EXAMINING BOARD.

Much unpleasantness sprang up between

the medical officers of some of the regiments in the Department of Santiago, and it was impossible to have the sick properly taken care of. General Leonard Wood appointed an Examining Board consisting of Major L. C. Carr, Major Seaton Norman and Major A. A. Wesley; Lieut. W. W. Quinton, Recorder. After we finished our work everything went on smoothly.

ENTERIC TROUBLES.

In November, December and January we had the majority of our enteric troubles. The causes were fruit, bad water, and sugar-cane juice; these were supplementary to those which ordinarily bring about enteric disturbances. Beginning with September the number of cases in the Eighth increased, reaching the climax in December, after which time the number decreased.

Total number of cases of dysentery—165. Total number of fatal cases of dysentery—4, of which one was complicated with pneumonia.

I wish to unequivocally assert that we never had anything like an epidemic of typhoid fever. We had only two deaths from this cause in the Eighth Illinois, and but three in the Twenty-third Kansas. In this connection I note that Major Victor C. Vaughan—sanitary expert of the University of Michigan—says that "the army surgeons correctly diagnosed less than one-half the cases." If this be true, then we were exceedingly fortunate: for I believe that a failure to properly diagnose this disease among troops can have but one result, and that is—an epidemic.

SMALL POX.

It is supposed variola was brought to Cuba shortly after the European had settled there. At all events it has raged there annually for centuries. One would think that through hundreds of years on a small island the population would get what might be called hereditary immunity. I believe we have to a certain extent acquired such immunity by reason of vaccination. However, only one case of variola occurred, and that in a native mail carrier who came to San Luis from Siboney, where Capt. R. S. Woodson did such excellent work in stamp-

ing out the disease. This case was put out about a mile from town, and there was no spread of the infection. However, our regiment had been vaccinated in Springfield.

WATER SUPPLY.

During the rainy season there is plenty of rain water for the troops. The dry season begins about November 1st, and by reason of the cessation of the rains the streams grow continually smaller until January, when many of the hitherto roaring rivers have either dried up or become simple rivulets, unfit for drinking purposes. Troops must have water, and it must be the very best they can get. Many November days were spent in locating camps where there would be ample drill grounds and a good water supply; but even at the most available spots the water had to be hauled quite a distance. One great problem of camp sanitation is how to obtain pure water. We used filtration and heat—the two best methods of sterilizing water. In the hospital I used the filter; in the camp the water was boiled; but it was difficult to get the men to confine themselves to the use of the latter.

REGIMENTAL DATA.

In the Eighth Illinois we had about 1,300 officers and men. In Cuba, for the greater portion of the time, our sick rate was about eight per cent. For a short period it rose as high as eleven per cent. Perhaps you will appreciate the importance of these figures if I state—by way of comparison—that it was said that one regiment, arriving after us, had at one time over eight hundred sick. That was more in accord with the experience of man; for, says John Hunter, in his "Observations on the Diseases of the Army in Jamaica" (third edition. London 1808, pages 10-31): "Four regiments were sent from England in 1780, to Jamaica; they arrived there on the 11th of August, and before the end of January ensuing, not quite six months, nearly one-half of them were dead, and a considerable part of the remainder were unfit for service." While the Eighth was in Cuba, Company G had the greatest number of sick

—95 out of a possible 104. Company D had the smallest number of sick—83 out of a possible 104. About fourteen per cent. of our regiment escaped illness while on the island.

A medical officer of high rank asked me what I thought of the relative sanitary precaution taken by the different regiments in the vicinity, and whether white soldiers in camp will not take better care of themselves than colored soldiers. My answer was that it is purely a matter of equal intelligences—that blacks and whites of the same degree of understanding display a like regard for the rules of health; but the blacks seem to be less fretful than the whites under the rigid requirements of army discipline. I based my reply upon a belief which arose from many careful observations that I made.

As far as I was able to note, the physical difference between the city and the country boys seemed to be in favor of the former, except in venereal cases. Of the latter we had, while on the island, a total of about eight per cent. sick with gonorrhea, chancre, and bubo.

The average age of the staff was 38—of the line officers, 32—of the men, 26. We left Springfield with 1,237 men and 46 officers. We returned to Chicago with 1,169 men and 46 officers. We lost 20 by death. In Cuba we lost 15 by disease; by being shot, 3. In the United States we lost 2 by disease.

We left in Cuba fourteen sick in hospital, of which number one is said to have died after we returned to the United States.

CAUSE OF DEATH IN CUBA.

Dysentery...	3
Dysentery and Pneumonia...	1
Typhoid Fever...	2
Malaria...	2
Typho-Malaria...	1
Tetanus...	1
Pneumonia...	1
Pulmonary Tuberculosis...	1
Pulmonary Hemorrhage...	1
Chronic Desqu'ative Nephritis.	1
Diabetic Coma...	1
Shot...	3

On March 10th we said good-bye to our

lowly Cuban friends and sailed from the land of perpetual summer toward the cooler zones at home. The return trip was made aboard the Sedgwick, which, though smaller than the Yale, was a much better transport, as it was governed by regulations of the war department. Every morning at 10 o'clock Col. J. R. Marshall, Capt. E. W. Hendricks, Quartermaster Johnson and myself inspected every part of the vessel. The ship's officers and the entire crew were not only accommodating but deserve high commendation for the admirable manner in which they performed their various duties. Embarking in shirt-sleeves at Santiago, we disembarked in overcoats at Newport News, without any serious effects from the change. We arrived in Chicago on March 18, 1899, and encamped at Tattersall's until mustered out.

CONCLUSION.

In conclusion I would say this:

The coördinate branches of the service—the army and navy—seemed to me to be as far apart as if they represented different governments. The fact that the success of one branch might mean the success of all, and the defeat of one branch might prove the defeat of all—should have forbidden the exhibition of any feeling of superiority on the part of either the army, the navy, the regular, or the volunteer. Although the war developed this slight friction between the different arms of the service—as well as wide diversities of opinion between the people supporting the same—happily, in the end, “there is glory enough for all.” We have only to remember the lesson which the Past has taught, and to faithfully perform the duty which the present imposes; then will the future present its star of hope.

As far as it is possible for such a conflict to be a blessing, the Spanish-American war has been one to the United States. It has had a tendency to unite more closely all parts of our union. It has brought all classes, from the banker to the laborer, nearer together. It has brought the regular military officer in closer touch with the volunteer officer, and each sees more clearly the

virtues rather than the faults of the other. It has established the fact that we need a larger army, and has revealed to us the great deficiencies of our ocean transports. It has pointed out the necessity for a greater medical force in the service, and taught us the desirability of a closer relationship between the National Guard and the Regular Army. It has exposed—by an actual test—every weak or defective point in the entire military establishment, and has made us familiar with just what is necessary to the rapid mobilization of two hundred and fifty thousand men. The war has also demonstrated that the United States has in the Negro a potent force that may be used to great advantage in warding off the blows of an enemy. It has placed beyond doubt or denial the Negro's fitness to command, and made evident his readiness to obey—even when obedience means for him “the low green tent whose curtains never outward swing.” It has demonstrated his unswerving loyalty to the government for which he fell with song upon his lips, while from his eyes flashed the ray of hope that in a coming day this nation would cease to permit the acts of degradation and cruelty which are practiced upon his people. The Spanish-American war brought to the Negro's heart especial thanksgiving, because he thought it would hasten (in every heart that loves fair play) the coming of the hour wherein the Negro would have his name redeemed from color's infamy. However this may be, it should be remembered that among the sons of men there is no class—no race—so lowly and despised that upon it the fate of a nation may not turn, and, in the eternal order of things, we are so bound one to another here in this great republic—“That any link you strike, Tenth or ten thousandth, breaks the chain alike.”

Dr. William J. Chenoweth, for nearly fifty years a resident of Decatur, has given up the practice of medicine there and removed to California. The members of the State Society will learn with great regret of the departure of Dr. Chenoweth.

THE ILLINOIS STATE MEDICAL SOCIETY.

PROCEEDINGS OF THE FIFTIETH ANNUAL
MEETING (SEMI-CENTENNIAL)

HELD AT

SPRINGFIELD, MAY 15, 16 AND 17, 1900.

The Secretary read a letter from Dr. Steele Bailey, Secretary of the Kentucky State Medical Society, extending greetings of that body and wishing for a successful and profitable meeting.

On motion, the Secretary was instructed to return cordial greetings to the Kentucky State Medical Society in appreciation of its good wishes.

Dr. George N. Kreider: I understand that the Judicial Council has recommended that the Society take up the matter of incorporation. It may not be known to many of you that the Illinois State Medical Society has never been incorporated, and in looking up the matter I find that societies have been incorporated in this State whose names very nearly resemble the Illinois State Medical Society. Considering the small expense attached to securing this name for ourselves, it might be well to have the Society incorporated before some fraudulent organization assumes the name, which would give us a great deal of trouble. It will only cost \$10.00. It needs no argument on my part to prove that the money would be well spent. I move you, sir, that the Society take steps for incorporation at once. Seconded and carried.

Dr. Kreider: There is one more point that comes up in this connection, and that is the designation of certain officers. The statute says that they shall be trustees or directors. This matter may be settled here, that is, that the name of the Judicial Council be changed to trustees or directors, whichever you decide upon. I move that the title Judicial Council be changed to Trustees. Seconded.

If necessary, we can change the name a year from now, but it is well to have the

application for incorporation placed in the hands of the Secretary of State. I will now give notice of an amendment to the Constitution changing the name Judicial Council to Trustees. (To lie over one year.)

Dr. A. I. Bouffleur: A much shorter and easier way to dispose of this matter would be, for the purpose of incorporation, that the Judicial Council be considered Trustees, and I therefore make that as a motion. Seconded.

Dr. N. S. Davis: Would it not secure better and more reliable action if we appoint a committee to make preliminary application for incorporation and report next year a definite plan for doing so? It occurs to me, that it might be well to do this to lessen the danger of making mistakes about it. We can direct the Judicial Council to begin the necessary steps for incorporation. I think it would be well to have a committee to take this under consideration to proceed as the statute requires.

The Secretary: The Judicial Council has had this matter under consideration for several days, and it is their report that we are now acting on practically.

Dr. W. O. Ensign: The motion of Dr. Bouffleur covers the whole thing. He simply moves that the Judicial Council be considered the Trustees of the Society.

The motion of Dr. Bouffleur was then put and carried.

On motion, the general meeting adjourned until 11 o'clock.

SECTION TWO—THIRD SESSION.

Dr. J. R. Pennington, of Chicago, read a paper entitled "The Diagnosis of Diseases of the Rectum."

Dr. A. E. Halstead, of Chicago, followed with a paper on "The Pathology and Treatment of Fistula in Ano."

Dr. N. H. Henderson, of Chicago, contributed a paper on "The Treatment of Hemorrhoids."

The discussion on this symposium was opened by Dr. Halstead, and continued by Drs. Pennington and Henderson.

Dr. Edward T. Dickerman, of Chicago, read a paper on "Treatment of Adenoids."

It was moved that all papers in this section that had not been presented be considered read by title and referred to the Committee on Publication. Seconded and carried.

At this juncture, the general meeting was called to order by the President.

Dr. Carl E. Black: In the appointment of a committee of three for the good of the order, according to the resolution of the Monday meeting, it should have combined the recommendation of local affiliated societies to also appoint a committee of three in their local societies for the same purpose. I therefore move that we make such a recommendation to local medical societies. Seconded and carried.

Dr. George N. Kreider: At the Cairo meeting, I moved an amendment to the Constitution providing for "Corresponding Members," and stated at that time that it was for the purpose of showing honor to gentlemen living in foreign countries. I now move the adoption of that amendment to the Constitution. Seconded and carried.

On motion, the Society adjourned until 1:30 p. m.

THIRD DAY—AFTERNOON SESSION.

The Society reassembled at 1:30 p. m., and was called to order by the President.

SECTION THREE—FIRST SESSION.

Chairman, Dr. George F. Butler, of Chicago; Secretary, Dr. W. J. Fernald, of Rantoul.

Dr. E. A. Edlen, of Moline, read a paper entitled "Mental Overwork and Lack of Interest in Physical Development and Hygienic Care of School Children—A Menace to the Future of the Race."

This paper was discussed by Drs. Ryan, Miller, Cotton, Goodell, Murphy, and, in closing, by the essayist.

Dr. James E. Coleman, of Canton, read a paper on "The Scientific Need of Legislation Enforcing County Registration of Syphilitics," which was discussed by Dr. Denslow Lewis, and the discussion closed by the author.

The general meeting was called to order at this time for the purpose of inducting

the President-elect, Dr. Kreider, into office.

The President appointed Drs. Corr and Cotton to escort Dr. Kreider to the Chair.

The retiring President, Dr. Moyer, in addressing his successor, said: Dr. Kreider, I lay down this insignia of office somewhat more cheerfully than I took it up. It has been a pleasure to me to have presided over the Illinois State Medical Society. At the time I was elected to this high office, I doubted the wisdom of the Society in its choice. At the close of the meeting, it would be unbecoming in me to state that I think their choice was well-founded. But it is to be remembered that I had two most able assistants in the work of the year, namely, the Secretary and Treasurer; the latter we have now appointed to the office of President, as the well merited recognition of ten long years of faithful service to this Society, and therefore it is with great pleasure that I pledge to you the hearty support of all members of the Illinois State Medical Society for the coming year. (Applause.)

Dr. Kreider, in accepting the Presidency, said: Dr. Moyer, and Members of the Society: It is needless for me to say that I feel highly gratified that this Society has seen fit to place me in the Presidential chair. No honor which has been or can be conferred upon me will be so much appreciated as this. The Fiftieth Anniversary has been an example and an inspiration. Never has the Society had such a first day; never has it had such a second day; never has it had such a banquet, or such a third day. (Applause.)

Your President-elect cannot hope to equal the distinguished gentlemen who have preceded him in this high office. If I may modestly claim one small virtue it is that I have a little business and organizing ability. I believe that this is exactly what the Society needs at this time. During the past year five or six new societies have been organized throughout the State. The chairman of the Committee on Medical Societies informs me that he has received promises of nine more societies to be organized during the coming year. (Ap-

plause.) Anything that the President and the Secretary can do in this line, I am sure, we will both be very glad to do. This means probably that we will have five hundred new members this year. I warn you of the deluge which is approaching. I want to enlist your co-operation and support in bringing on this deluge, and to assure you that the officers can be called upon for anything they can do, and they ask your help, so that we may call on you to assist us in this great work.

In starting upon the second fifty years of work, I hope and trust that the coming year will find us much further along in our ambition to organize the medical profession of the State than we are at the present time. Gentlemen, I thank you for your kindness in electing me to this office. (Applause.)

The Secretary: I move a reconsideration of the vote taken this morning with reference to the incorporation of this Society. Seconded and carried.

Dr. Harold N. Moyer: There are some good reasons why we should undo the work of this morning. I shall not give them at this time, but merely state that our action was somewhat hasty. It is an important step. It is a subject that has been under consideration by the American Medical Association for a long time, and while I think some action should be taken at this time towards securing the incorporation of the Society, I do not think the matter ought to be done hastily. There are important reasons for not doing it, and I will not rehearse them here unless you feel it is necessary to do so. I would urge that a reconsideration be given and more thought be bestowed upon the matter, not that we desire to defeat it, but we favor it, and that there should be adequate revision of the by-laws and of the Constitution before this action is taken as one of the preliminary steps.

Dr. George N. Kreider: Our venerable friend, Dr. N. S. Davis, was hardly given an opportunity to make some remarks that he intended to make. Dr. Davis wants to discuss this matter fully in the Society's Journal later on.

Dr. Denslow Lewis: I now move that the matter of taking steps to incorporate the Society be referred to the Judicial Council with power to act. Seconded and carried.

SECTION THREE—SECOND SESSION.

Dr. A. C. Corr, of East St. Louis, read a paper entitled "A Further Consideration of State Medicine and Sanitation," which was discussed by Drs. Robison, L. C. Corr, and the discussion closed by the essayist.

Dr. Florence Hunt, of Chicago, contributed a paper entitled "Sanitary Treatment of Pulmonary Tuberculosis in Illinois," which was read by Dr. Moyer in the absence of the author.

Dr. John A. Robison, of Chicago, read a paper on "State Care of Consumptives," which was discussed by Drs. Brown and Center.

Dr. Adolph Gehrmann, of Chicago, read a paper on "Observations as to the Efficiency of the Chicago Health Department of Fumigation," which was discussed by Drs. Wallace, Allaben, and, in closing, by Dr. Gehrmann.

Dr. Katherine Miller, of Lincoln, read a paper on "The Relation of the Physician to the Public Schools," which was discussed by Drs. Henry, Goodell, and, in closing, by the author of the paper.

Dr. O. B. Will, of Peoria, followed with a paper on "The Medico-Legal Status of Abortion."

Dr. W. J. Chenoweth, of Decatur, read a paper entitled "If the Cause is Removed, the Cure will Follow," which was discussed by Dr. Gehrmann.

Dr. R. H. Henry, of Peotone, read a paper on "What Shall the Harvest Be?"

Dr. E. L. Herriott, of Jacksonville, read a paper entitled "Practical Observations on the Chemical Effects of a Few of the Older and some of the Newer Remedies."

Dr. J. P. Matthews, of Carlinville, read a paper on "The Eliminative Function of the Kidneys in Health and Disease."

The hour for adjournment being near, Dr. Weis moved that the remainder of the papers in this Section be read in abstract

and referred to the Publication Committee. Seconded and carried.

President Kreider called the Society to order in general session.

Dr. J. W. Pettit offered the following preamble and resolutions:

Whereas, Physical incapability alone prevented the chief executive of the State, the Honorable John R. Tanner, from extending in person a hearty welcome to the Capital, as stated by his official associate, who so eloquently presented the same; therefore, be it

Resolved, That we the members of the Illinois State Medical Society extend our profound sympathy to Governor Tanner in his illness, and express the earnest hope that he may soon be restored to complete health.

Resolved, That our Secretary be and is hereby instructed to convey to the Governor this public expression of our feelings.

On motion, the resolutions were adopted.

Dr. J. R. Pennington, Chicago: I want to ask a question concerning one of the members of this Society, and I am going to do it because a report or rumor has come to my ears, and I want to know whether there is any foundation for it. Several members have asked me if I knew Dr. Henderson. They said that he is considered an advertising man; that he sends men all over the country to solicit business for him. Dr. Henderson is here, and I am sure he would like to know about this as well as the rest of us.

Dr. William H. Wilder, Chicago: If there is anything to be done in this matter, distinct and specific charges should be preferred so that the committee or Society may have something to work on. If these are only rumors, very little cognizance should be taken of them. If there is anything against this man, he should be given a fair trial.

Dr. O. B. Will, Peoria: The membership of this Society is made up of gentlemen who represent local organizations. We receive them upon the credentials from their local organizations, and it is the cus-

tom to refer such matters back to the local organization from which the gentleman came.

Dr. Carl E. Black: I move that this matter be referred to the local society for investigation. Seconded and carried.

The Secretary: There was referred from Section 3 a resolution or motion made by Dr. John A. Robison. It is this:

Dr. Robison moves that it is the sense of the Illinois State Medical Society, that the establishment of sanatoria for the State care of consumptives is feasible, and that all efforts to this end by the State Board of Health receive the hearty support of the Society.

Seconded by Dr. Butler, and carried.

The secretary read a telegram from the Iowa State Medical Society extending greetings.

This telegram was received too late for any action to be taken in regard to it.

Dr. O. B. Will offered the following preamble and resolutions:

Whereas, The present Jubilee meeting of the Illinois State Medical Society, now drawing to a close, has proven one of the most interesting and profitable, as well as pleasant, in the history of the organization; and

Whereas, To local efforts and influences must necessarily always be due much of such desirable results; therefore, be it

Resolved, That the members of the Illinois State Medical Society in session assembled hereby tender to the citizens and profession of the city of Springfield, and especially to those constituting the local committee of arrangements, their most earnest and hearty acknowledgement, and thanks for favors shown and possibility of successes won.

Resolved, That a copy of these resolutions be handed to the local committee and to the public press of Springfield.

On motion, the resolutions were unanimously adopted.

There being no further business to come before the meeting, the Society then adjourned, to meet in the city of Peoria, third Tuesday in May, 1901.

The Illinois Medical Journal

PUBLISHED MONTHLY.

Official Organ of the Illinois State Medical Society.

Committee on Publication:

E. W. WEIS, M. D., Chairman, Ottawa.

G. N. KREIDER, M. D., Springfield.

E. J. BROWN, M. D., Decatur.

All communications should be addressed to E. W. WEIS, Secretary, Ottawa, Ill.

All remittances for subscriptions should be sent to E. J. Brown, Treasurer, Decatur, Ill.

The Society does not assume responsibility for any statements or opinions published in this journal.

Entered at the Postoffice at Springfield, Ill., as second-class matter.

Springfield, Ill., October, 1900.

STATISTICS.

The Secretary of the State Board of Health justly complains that the physicians of Illinois do not respond to his requests for accurate data concerning the personnel of the profession. This is a subject which has a direct bearing on each and every practitioner, and should receive his hearty cooperation. Recently the Secretary has issued a mortuary list of licentiates of the Board since 1877. He is certain that it is incomplete, but is powerless to complete it without the assistance of the profession. Members of the Society will please take notice and lend their assistance.

K.

INTRA-SPINAL COCAINIZING FOR GENERAL ANESTHESIA.

During our recent visit to Paris we had the pleasure of seeing Tuffier perform five capital operations by the anesthesia being induced through the injection of cocaine into the spinal canal. While the method is not original with Tuffier, being a German production, he has probably used it oftener than any one. He stated to us that he had applied it in about three hundred cases with not one bad result or effect for

a remote period of time. That the anesthesia was complete, we witnessed ourselves in that the operations were for the removal of ovarian tumors, the ovary, the kidney and gastro-enterostomy. The patients were thoroughly conscious and conversed with the operator. The only untoward symptoms seen were those of general shock and some nausea. I may state in passing that Tuffier never uses this method in operating above the diaphragm. His mode of application is very simple. He is not particular between which vertebrae he enters the canal, whether between the first and second or second and third lumbar, but he always introduces it in the lumbar region. The patient is in the sitting position, stooping forward and with a three inch hypodermic needle he readily enters the spinal canal. This is evidenced by the escape of spinal fluid through the needle. He injects one gramme of a two per cent solution which has been sterilized by being subjected to a temperature of 180° F. for several hours on three consecutive days. Five minutes after the injection the anesthesia is complete and remains so from one to three hours. By this method he has failed to perceive any of the uncertain and toxic effect of cocaine in any of his cases. There is scarcely any question but what this method will soon supersede general anesthesia by chloroform and ether in the near future when employed by skillful and careful operators in operations below the diaphragm.

W.

INTERNATIONAL MEDICAL CONGRESS.

The XIII International Medical Congress opened at Paris, August 2nd, 1900, in the magnificent music hall of the Exposition. Owing to the death of King Humbert, President Loubet did not open the Congress in person as was intended, but

was present. The opening session showed 5,000 members in attendance. Owing to the deficient acoustic properties of the hall there was considerable disappointment in not being able to fully hear either the papers read, or the remarks made. Another unfortunate condition was that all of the proceedings were in the French language, with very few exceptions. Those foreigners who could not understand that language failed to receive the full benefit of their attendance. This condition continued throughout the entire Congress. It is safe to assume that at least one-third of the visiting members were disappointed in this regard, but great pleasure was experienced in being able to see the giants of the profession from all over the world. It was delightful to see the ovation given Prof. Virchow when he rose to read his paper.

America was well represented, there being twice as many American as English physicians. Illinois seemed to have the greater representation of the American states.

The hospitality and courtesy of the French physicians could not have been excelled—free card of admission to the Exposition, ready admittance to all clinics, hospitals and public institutions and an earnest effort to make our sojourn there a most pleasant, as well as a memorable one.

The receptions and fetes were numerous and well attended. At the clinics the operations were witnessed by our best surgeons, who seemed determined to allow nothing of the best and latest to escape them.

The Congress in general was a grand success, both as to numbers and quality of material introduced, but the hope is entertained that at the fourteenth meeting some provision will be made so that the English speaking physicians can have a section to themselves.

W.

Correspondence.

XIII INTERNATIONAL MEDICAL CONGRESS.

Paris, Aug. 10th, 1900.

To the Editor:

Appended please find list of registration of members attending the Congress. The last few days the sessions have been well attended, perhaps better than during the earlier days of the Congress. Receptions, dinners and fetes have been thronged by visiting physicians and their friends. On the 9th inst. President and Madame Loubet gave a reception. An entertainment was given on the stage erected on the large grounds inside the Elysee enclosure. There certainly were five or six thousand people in attendance.

The French physicians have been most hospitable. We have witnessed many surgical operations, and were particularly interested in those of Dr. Doyens at his private hospital, Hospital Bichat. We have visited the new Boucicault Hospital founded by the former proprietors of the great store Bon Marche. It is probably the most modern and complete of European hospitals—built on the pavilion plan. It cost, including funds left for endowment, \$600,000. Dr. Doyens' operations are much sought for by visiting members. One obtains admission by invitation. He is a young man probably not more than forty-five, is a cool operator, who talks well as he works and furnishes what may be termed a spectacular performance. He uses only instruments constructed for him, many of which differ materially from those in common use. On account of the many mechanical devices which he calls to his aid his work has been said by some to be a step backward. One thing is apparent, he does nothing blindly for in his abdominal incisions the utmost freedom is practiced and every organ can be seen as the large wound is held wide open. He has a fine operating room, and after the operation was over, gave a moving picture exhibition showing a few operations throughout.

Sir James Simpson and a number of

noted men were present to witness the morning proceedings.

Some good papers have been presented in the surgical section on "Infection," studying rather the factors that make for inviting or resisting infection than the role germs play.

Under the guidance of Dr. George Rubin, a wide-awake, Chicago P. and S. graduate, we saw very much of medical Paris. We visited the great Pasteur Institute. There we visited Pasteur's tomb. Here we also met Professors Metchnikoff and Marmorek, both of world-wide fame, in their laboratory and their working clothes. The widow of Pasteur lives in the building. Prof. Metchnikoff is Pasteur's successor.

A dinner was given by American physicians at the Hotel d'Orsay last night (at which but thirty were present) to Dr. Mamon, who has been largely instrumental in arranging matters pertaining to the Medical Congress in its relation to the great Exposition. To-day another reception will be given by the city to visitors at the Hotel de Ville, after which the Congress will be only a memory, but a very pleasant one for those of us who could not only enjoy it, but for the first time see the great city with its many interesting and instructive features.

Yours truly,
Wm. M. Harsha, M. D.

Total Registration of Members Attending
the XIII International Medical
Congress, Paris.

France	2,293
Russia	805
Germany	572
United States	412
Italy	324
Great Britain	222
Spain	219
Belgium	147
Austria	141
Argentine Republic	108
Switzerland	101
Hungary	85
Roumania	60
Egypt	47

Denmark	46
Japan	43
Brazil	41
Turkey	39
Portugal	35
Greece	33
Sweden	28
Bulgaria	26
Mexico	24
Canada	20
Norway	18
Luxemburg	16
Servia	15
Croatia	8
Peru	6
Australia	4
General	202
Total	6,170

THE WORK OF THE LEGISLATIVE COMMITTEE.
Editor Journal:

It is not too late to commend the attitude of the legislative committee as set forth in the address of its chairman, Dr. C. E. Black, at its meeting in June last.

Since the legislative committee has become one of the recognized instruments of the Illinois State Medical Society for the purpose of consummating the designs of the organized, regular profession of the State set forth in the preamble of that society at its organization fifty years ago, and we accept its duties and obligations as declared in the chairman's address as referred to and its readiness to receive suggestions and instructions from the educated profession at large, and more especially the members of the parent society as to how best to promote Sanitation and State Medicine in the advancement and protection of the health and happiness of all the people of the State. It is the duty of individual physicians throughout the State, interested in these matters, as everyone should be, to express an interest if not a readiness for active co-operation in the matters that confront the committee. I am sure no more appropriate position could be assumed than that indicated in the chairman's address referred to.

Please let it be remembered that this

legislative committee is organized by the State Society to actively carry into operation the Society's behests in the enactment of such laws as will promote Sanitation and State Medicine both as to the regulation of the practitioners of medicine and the protection of the people of the State against the incursion and spread of epidemics and contagious diseases and the gathering of such vital and mortuary and other statistics pertaining to disease as will lead to the knowledge of how to maintain the best condition of health, vigor and intelligence among the whole people, and to prevent such pernicious legislation on the part of designing quacks, charlatans and mountebanks as may seek to prey on the confiding, uninformed public, who trust blindly without sufficient investigations to the designing pretenses of some who parade under the livery of medicine, and who are trying to ingratiate themselves into public confidence by the frequent and ingenious use of the word liberty and freedom in their publications.

This committee in conjunction with the State Board of Health, another instrument of the State Society which is empowered by a legal enactment to regulate the practice of medicine in the State, and to carry into effect the sanitary laws of the State, are entrusted with these responsibilities. The one to execute, the other to procure legislation, promotive of protection to health, well-being and life of the citizens of the State.

All of the points in Dr. Black's address to which he called attention as desiring to know the sentiments of the profession deserve much consideration.

A thorough organization of the profession throughout the State in the State Society and local affiliating societies for which the address asked is greatly to be desired,—and is a necessity for its influence in legislation and a proper recognition of a unity of purpose. Hence, each member should strive to create that sentiment among his professional fellows with whom he comes in contact.

The expressions of views on the various

legislative topics should be indulged in freely and importunately through the Journal, in society meetings and otherwise that the committee may appreciate them, which will lead to a definite idea as to what the profession desires. In this the desired legislation should be reduced to a minimum and as well arranged and forcefully put as possible. I am inclined to the view that formulated laws should be presented by the State Board in accordance with a clause in the law creating the Board which says the Board may from time to time recommend to the governor or legislature such laws as it may deem necessary to promote sanitary interests, etc.

The Board is a body created by the legislature under form of law and thus presenting matters to it under its expressed prerogative would, it seems, be better heeded.

I think the committee has wisely concluded not to ask for any radical legislation at the next session. I think the good of the act of the last session will not be fully appreciated at so early a date as the time of the next session. In fact I think it will be many years before we will fully realize the many good features of that law, fragmentary as it appears to be.

The clause that, only those who are licensed to practice medicine in its entirety shall entitle themselves as doctors, is of immense utility and importance as a legal basis on which the character of physicians is established. This important point may not be fully appreciated by the profession, or felt the force of by the charlatan for a long while, but it is hoped that it will be kept in force as a distinguishing feature so long as any well-informed physicians are allowed to practice.

It is hoped the actions of the legislative committee will meet with such approval by the profession and be confided in so implicitly that it may soon be looked upon both by the law-making body, state officials and the public generally as an exponent or representative of the profession to which all alike will turn on all questions of in-

formation on Sanitation and State Medicine.

I hope the view of both the committee and the Board of Health will become widened so as to adopt and execute some well devised plan of gathering vital, mortuary and sanitary statistics so that marriages, births, deaths and all cases of certain diseases shall be so tabulated as to become accessible for uses that may be made of them to prevent their occurrence and spread, at least of tuberculosis and syphilis, both preventable diseases.

With suitable laws and a widened scope of utility, as Dr. Black has suggested, let us carry Illinois to the front in all matters pertaining to Sanitation and State Medicine.

Hence let us respond to the committee's call for suggestions and instruction, by private letter or more appropriately through the Journal and give expression of undivided interest and earnest support.

Respectfully,

A. C. Corr.

E. St. Louis, Ill.

FROM SOUTHERN ILLINOIS.

To many members of the State Society it has seemed strange that so few practitioners of the southern part of the State have allied themselves with the State organization. The following letter is of interest in this connection. It shows that the work of the State Society is appreciated and there would seem to be no good reason why the members of the Southern Illinois Medical Society should not become also active members of the State Society.

Mt. Vernon, Ill., Sept. 22, 1900.

Dear Doctor Kreider:

Your very kind favor of the 18th at hand. I thank you sincerely for the Journal. I have enjoyed it very much. I certainly think very, very highly of the State Medical Association, and appreciate the grand work that it has done and is doing for the people of our State, likewise the high standing it has given our noble profession. I have always wanted to become a member, but have not done so. One

principal reason is, that very early in my professional life, I became an active member of the Southern Illinois Medical, and have been peculiarly identified with it—I may say almost prominently associated with it. The meetings of the State Medical always take place at nearly the same time of the annual meeting of the Southern Illinois Medical. I nearly always attend the meeting of the Southern Illinois. I am also a member of the American Medical, which I always attend if possible, as well as the meetings of the International Association of Railway Surgeons. I have felt that I could not spare more time away from my work at home. However, I am very proud of our State Medical Association, and will do my best to enhance its interests. I want very much to become an active member at some time. Again, I thank you.

Yours fraternally,

J. H. Mitchell.

NATIONAL ASSOCIATION FOR THE STUDY OF
EPILEPSY AND THE CARE AND TREAT-
MENT OF EPILEPTICS.

Sonyea, N. Y., July 30, 1900.

George N. Kreider, M. D., Pres.,
Illinois State Medical Society,
Springfield, Ill.

Dear Sir—In view of the large and increasing number of epileptics in the United States, whose unfortunate and neglected condition awakens the sympathy of every humane person, earnest efforts are now making by the National Association for the Study of Epilepsy and the Care and Treatment of Epileptics to secure suitable provision for this class in states not having such provision. In the attainment of this end the co-operation of your Society and other benevolent agencies is solicited.

At a meeting of the executive committee of the Association, held at the Academy of Medicine in New York City, June 21, 1900, the condition of epileptics in your State was a subject of consideration, and the secretary was requested to write to you and respectfully suggest that your Society appoint a committee to ascertain the num

ber and condition of epileptics under public care in the various institutions of your State, and also to procure such information as is obtainable respecting the number of epileptics not under institutional care, and report them to your Society. The last-named work has been accomplished with tolerably satisfactory results in some states through correspondence with local medical practitioners. Such information it is believed would be of great value to your legislature and to this Association in the prosecution of its work.

It has been decided to hold a meeting of the Association in the city of Washington in the spring of 1901, the precise date of which will be announced later.

I am, yours with great respect,
Wm. P. Spratling,

Secretary of the National Association for the Study of Epilepsy and the Care and Treatment of Epileptics.

Inquiry at the office of the State Board of Commissioners of Public Charities as to the status of the proposed institution for the care of epileptics in Illinois, was answered by the statement that the board would not be in a position to make a definite answer for some time yet. In the meantime those interested should spare no effort to see that our State makes early and sufficient provision for these unfortunates.

County and District Societies.

The Warren County Medical Society which meets semi-annually, elected the following officers for the ensuing year:

President, Cynthia Skinner.

Vice President, J. C. Kilgore.

Secretary, Adella R. Nichol.

Adella R. Nichol, Reporter.

The Winnebago County Medical Society met at Rockford, August 14, and papers were read by T. H. Culhane on the "Surgical Treatment of Appendicitis," Albert Green on "Cholera Infantum," S. L. Anderson on the "Etiology and Diagnosis of Typhoid Fever," and E. H. Ochser on the "Surgical Treatment of Perforation in Typhoid Fever."

The Moultrie County Medical Society met Thursday evening, Sept. 13th, at Lovington, with a good attendance, with President Dr. B. F. McMennamy presiding. Called to order at 8 P. M.

Dr. Hamilton's paper on "Intestinal Troubles of Children" was read, although the doctor was not present, as he is in Colorado on account of ill health.

Dr. J. D. Donovan read a good paper on "Early Abortions," with considerable discussion following.

Dr. W. K. Hoover presented a very interesting case of a man with right pneumo-pyothorax.

Dr. E. P. Miller presented a case of a child one year old with extensive addenitis of right side of face and neck, apparently beginning in parotid gland.

Our Society has grown to nearly twenty members and is in good working order. Added two new members at this meeting. We had with us Dr. E. J. Brown, of Decatur, Treasurer of the State Medical Society, who gave us a talk on the work of the State Society, and appealed that all should be members of that Society. Several new members were added to the State Society.

Our next meeting will be held at Sullivan, Oct. 11th, 1900. We hope to enlist all of our physicians in the Society, and will by the first of next year.

J. W. Mayes, Reporter.

The Morgan County Medical Society met in regular session Thursday, Aug. 9, 1900. Members present: Adams, Baker, Bowe, Cole, Franken, Moffet, Pitner and G. E. Baxter.

Minutes of July meeting approved as published.

The committee appointed to confer with the school board regarding the ventilation and heating of the high school reported that they had conferred with the board and a proper system would be adopted.

C. E. Black presented a communication from Miss Abbie Pierson, presenting a volume of notes taken by her grandfather, who attended the University of Pennsylvania during the years of 1812-13 and 1813-14. The notes were from the lectures of Dr. Physick and gave an excellent account of the teachings on surgery in the early part of the century. Dr. Black also presented a portfolio of papers selected by Miss Pierson from the library of her father for many years a practitioner at Augusta, Ill.

The society voted that the secretary formally notify Miss Pierson of the acceptance of these papers and express the thanks of the society for the same.

Subject for general discussion at the September meeting, "Appendicitis."

Papers on this subject by P. C. Thompson and C. E. Black.

Appointees for October: Harvey, Franken and Virginnie Dinsmore.

Reports of cases by Drs. Crouch and Vertrees.

Dr. Moffett reported two cases of acute military tuberculosis.

Dr. Franken reported a case of typhoid fever following malaria.

Dr. Black reported a case of sarcoma of the pelvis.

Dr. Pitner reported a case of septic endocarditis.

Adjourned.

—From the Society Journal.

The Montgomery County Medical Society met at the court house in Hillsboro, Sept. 11, 1900, and reorganized.

There being none of the old officers present Baxter Haynes was made chairman pro tem. and Wm. H. Cook, secretary pro tem.

There being enough of the old members present to constitute a quorum, minutes of the previous meeting were read and approved.

The chairman appointed a board of censors, viz: I. W. Fink, M. L. Moyer and J. C. Wilson. They then received the applications of W. W. Douglas and G. A. Clotfelter, of Hillsboro; M. W. Snell and F. C. Blackwelder, of Litchfield; O. Hauser, of Walshville; W. A. Edwards, of Butler; P. J. Fullerton, of Irving; Joe M. Trigg, of Farmersville; Jesse M. Hoyt, of Fillmore, and F. M. Entrekin, of Coffeen, and on the recommendation of the censors they were admitted to membership.

After the election of the new members it was moved that we proceed to make the organization permanent, which motion was carried.

Officers were elected as follows:

President, W. W. Douglas, of Hillsboro.

Vice President, F. C. Blackwelder, of Litchfield.

Secretary and Treasurer, Joe M. Trigg, of Farmersville; Censors, I. W. Fink, of Hillsboro; Wm. H. Cook, of Coffeen; T. J. Whitten, of Nokomis.

Motion carried to appoint a committee of three to revise the constitution and by-laws.

Motion carried that a committee of three be appointed to make out a fee bill and report at next meeting.

Wm. H. Cook, reported a case of gasoline poisoning and the symptoms produced therefrom, and which was discussed by M. W. Snell, and brought some interesting facts from a post-mortem case.

Adjourned until next regular meeting.

Joe M. Trigg, M. D., Reporter.

The Sangamon County Medical Society met September 10th. The meeting was called to order by President Kreider. In the absence of the secretary, B. B. Griffith was appointed temporarily to that duty. Members present: Munson, Brayshaw, A. D. Taylor, Pierce, Shutt, Griffith, Kreider, A. L. Hagler, P. L. Taylor, Walters, Mann, and visitors Booth, Hill and Rogers. The applications of Jos. M. Trigg, of Farmers-

ville, and A. L. Stuttle, of Williamsville, for membership were received and placed on file. The committee on regulation of the milk supply asked for and was granted further time.

The president appointed B. B. Griffith to represent the society at the complimentary banquet to be given Christian Fenger Nov. 3 proximo.

Margaret T. Shutt then presented a paper on the microscopic examination of the blood as an aid to diagnosis. The paper was a plain and forceful presentation of this subject, and was illustrated by excellent drawings and preparations of blood.

S. E. Munson commended the paper in the highest terms and referred to the great importance of blood examinations in making diagnosis. Said that it was fully equal to urinalysis. He referred to a case in which the examination of the blood was his chief aid in making a diagnosis of an obscure cancerous growth of the stomach.

G. N. Kreider referred to the fact that his graduation thesis twenty years ago was on anæmia, and that the literature on the subject was then almost nil. Great advancement had been made since then and still greater discoveries were to be made in the future. In these discoveries any student with a small expenditure of time and money might participate.

J. Brayshaw reported a case of hernia which had been reduced *en bloc* by another physician with a fatal result, although an operation for relief had been undertaken after some days by Dr. Brayshaw.

G. N. Kreider spoke of a case of tuberculosis of the hip joint which had made very unsatisfactory progress until an accidental invasion of erysipelas had occurred, when great improvement resulted.

After lunch the society adjourned.

The Adams County Medical Society met Aug. 13, 1900, President Otis Johnson in the chair. The usual routine business was transacted.

R. J. Christie, Jr., Jos. Robbins and Wm. Gilleland, appointed as committee to confer with the committee on medical legislation, elected by the State Medical Society.

Dr. Wilson, Sr., and Dr. Wilson, Jr., of Versailles, Ill., applied for membership, as Brown county has no medical society.

The subject, "The Summer Diarrhoea of Children, Etiology, Pathology and Treatment," had been previously announced as coming up for general discussion. The subject was opened by Dr. Gilleland, who recognizes three causal factors for these cases: heat, teething and improper diet. He makes it his habit to take the dietary of these patients in his own hands. Considers milk the best diet when properly handled. He feeds these patients once in four hours if under one year, every six hours when older. Gives water freely between feedings. Believes if the stomach is given rest that nature will

purify and sweeten the viscus without artificial aids. Believes that these cases are suffering from toxæmia arising from ptomaines when high temperature develops.

Dr. Koch spoke very favorably of tannalbin, which in his hands has given satisfactory results in some 20 cases. This preparation is an albuminate of tannin and passes through the stomach unchanged, but is broken up in the alkaline medicine of the intestine. If the case is seen early he favors the use of a purge of castor oil. In some cases he also resorts to the use of bismuth salicylate and resorcin.

Dr. Germain recommended purgation with either withdrawal of milk as diet, or its dilution with an equal amount of water. She also makes it her practice to flush the colon, and finds acetic acid beneficial in many cases.

Dr. Justice believes that the etiology of summer diarrhœa lies in the failure of the chemistry of digestion, and that all that is needed if the case is seen early is to restore this function. He believes the period of the disease must be recognized in selecting a remedy, and mentioned alochol, soda bicarb and eudoxine as his favorite drugs.

Dr. Wilson, of Versailles, Brown county, said he had more trouble with the parents and grandparents of these patients than he had with the patients, for he believes in an early purgation and a rigid restriction of diet. This he finds hard to achieve, since in his country practice the friends of the patient are so apt to administer teas of varied composition, and forbidden articles of diet in his absence.

Dr. Christie, Jr., spoke of the benefit to be obtained by the inunctions of sweet oil when it is impossible to give nourishment internally. Also of the advantage of gastric lavage when here is obstinate vomiting.

Dr. Bierne said: "Remove the cause. Stop all milk, feed barley water and white of egg. Use arsenite of copper for the diarrhœa."

Dr. Rice advocated a mild purgative followed by withdrawal of all nourishment for from 24 to 48 hours.

Members present at this meeting were Drs. Hull, Justice, Christie, Jr., Koch, German, Johnston, Gilleland, Bierne, Rice, Center.

Visitor, Dr. Wilson, of Versailles, Ill.

Chas. D. Center, Secretary.

The Adams County Medical Society met September 10, 1900. The meeting was called to order by President Otis Johnson, and the usual routine business was transacted. After the reading of letters from J. A. Egan, Secretary State Board of Health, the motion was carried to give moral support to the State Board of Health in its prosecution of unlicensed practitioners, and to assist the attorney representing that Board in securing evidence to convict.

S. J. and J. F. Wilson, of Versailles, Brown county, Ill., were elected to full membership in the society.

W. W. Williams gave a clinical report of an

operative case of carcinoma of the breast. In the ensuing discussion L. H. A. Nickerson stated that he was becoming more and more convinced of the futility of operating for breast carcinoma as he believed there was always recurrence, or development of carcinoma elsewhere. He cited cases to sustain his point. Dr. Christie, Jr., and President Johnston defended surgical procedures, and pleaded for early, radical and complete operation before there was possibility of metastatic involvement.

C. D. Center reported 14 cases treated by the hot air bath and drew the following conclusions: The hot air bath has proved its usefulness, particularly in cases of nerve involvement, and in the traumatic joint conditions. It has proved less serviceable in the joint involvements due to inflammatory action of a septic origin. In all, except cases of very long continuance, or in those where multiple joints are involved, it has proved useful as a pain reliever. The greatest disappointment has been in cases of acute articular rheumatism.

Otis Johnston reported a case of ovarian cyst, where the pedicle was found twisted, necrotic, and with a well-formed line of demarcation. The patient for five days previous to operation had a temperature of 102° F., but the morning of operation was found with a subnormal temperature. The operation disclosed a copious hemorrhage of recent occurrence into the cyst cavity.

The Adams County Society now has 45 members and is in an exceedingly flourishing condition. The meetings are well attended and an unusual degree of interest shown. In July some members of the society succeeded in giving an evening excursion up the river. Those attending, some 350 in number, were the doctors, lawyers, dentists and druggists with their friends or families. It was a pleasant social event for a hot evening.

Chas. D. Center, Secretary.

PIKE COUNTY MEDICAL SOCIETY.

At the regular meeting held at Pittsfield, Aug. 16, 1900, the following members were present: L. J. Harvey, R. H. Main, Virgil Beavers, Geo. A. Humpert, Wm. E. Shastid, H. T. Duffield, F. M. Crane, G. F. Bechtoldt and W. F. Reynolds.

The following visitors were present: Harvey Dunn, of Perry; L. S. Lacy, of Pleasant Hill, and W. H. Garrison, of Pearl.

L. J. Harvey, President, presided.

Minutes of last meeting were read and approved.

J. C. Taylor, of Hulls, was elected to membership.

The names of Harvey Dunn, of Perry, and T. W. Shastid, of Pittsfield, were presented for membership.

According to a request from Carl E. Black, chairman of the State committee on medical legislation, the following committee was appointed "for the good of the profession:" H. T.

Duffield and F. M. Crane, of Pittsfield, and R. H. Main, of Barry.

Virgil Beavers spoke at length on "Hay Fever and Hay Asthma." He strongly recommended the removal of the diseased membrane from the inferior turbinated body and any other disease from the nasal cavity, such as adenoids and spurs. He reported two cases of hay fever and asthma of long standing which were immediately and permanently relieved by such operation.

W. E. Shastid advised a change of climate to the lake or seashore. He also desired to know if anyone had used the suprarenal extract for hay fever.

Harvey Dunn spoke of the uric acid theory in the causation of hay fever, and said that after thorough investigation he was convinced that uric acid was not the cause.

G. F. Bechdoldt read a paper on "Rickets," and reported a case of decided and rapid improvement by dietary regulation and the use of lemon juice. He quoted W. E. Saunders, of St. Louis, as saying that every case of rickets has an acute beginning and taken in the acute stage every case can be cured in three days.

R. H. Main said that in a practice of six years he had never seen a case of true rickets, and he considered it a rare disease. He suggested that most cases of rickets, so-called, were truly marasmus and were relieved by dietary and assimilative regulation.

L. J. Harvey reported a case of so-called rickets which was promptly relieved by dietary regulation.

Harvey Dunn also stated that in his experience most cases of rickets (so-called) were corrected by regulating the diet and digestion. He advised the use of fruit juices.

B. P. Bradburn, who was to present a paper, was not present.

R. H. Main reported a case of idiopathic oedema in a child of 4 years.

H. Dunn also reported a case of idiopathic oedema in an adult, which was relieved by using large quantities of oranges.

W. F. Reynolds reported a case of meningitis in a child of eight months in which the temperature reached 108° F.

H. T. Duffield, P. W. Brown and G. H. Henry were selected to present papers at the next meeting.

The next meeting will be at the office of H. T. Duffield in Pittsfield, Oct. 18, 1900.

R. H. Main, Secretary.

SOUTHERN ILLINOIS MEDICAL ASSOCIATION.

The 26th annual meeting of the Southern Illinois Medical Association convened at the Auditorium in Sparta, Ill., May 10, at 11 A. M. The meeting was called to order by the president, A. McLee. Divine invocation was offered, after which, the secretary being absent, W. F. Grinstead was made secretary pro tem.

Upon roll call only 17 members responded as only the early trains had arrived.

The president appointed a board of censors,

consisting of Drs. Guthrie, Burgess, Silvey, White and Meyers.

The dues of Andy Hall and C. M. Galbraith were remitted on account of absence in the Philippines in the service of their country.

The association adjourned at 12 M. and was convened at 1:30 P. M.

Among the valuable papers which were presented at this session may be mentioned "Neurasthenia," by D. S. Booth, which called forth considerable discussion. Among those who discussed the subject were Drs. Grinstead, McIntire, Mann, Sloey, Jacobs, Essick and Silvey.

Dr. Galt presented a photograph of a case of so-called "cuban itch," in reality smallpox. This called forth considerable discussion, but the consensus of opinion was that it was genuine variola.

Prof. French, of the Southern Illinois State Normal, presented pathological specimens with microscopic demonstrations. These specimens called forth discussion by Drs. Gault, Booth, Guthrie and Grinstead, after which Prof. French was unanimously elected an honorary member of the Association.

A large number of interesting cases were next reported, among which were epilepsy cured by lancing gums—W. W. Essick. Removal of foreign body from ear with resultant cure of cough of 4 years standing—H. L. Gault. Removal of navy bean from ear resulting in cure of convulsions—Dr. Jacobs. Dr. Silvey, in the discussion of these cases, emphasized the point that we should not assign the same cause for a certain condition in all cases.

The president made a short congratulatory speech on the work of the society, and after the presentment of a number of other interesting cases, the society adjourned.

In the evening a reception was tendered by the local profession of Sparta to the association. At this reception sweet music was discoursed and enjoyment reigned supreme. This was one of the most delightful features of the meeting at Sparta, and a unanimous vote of thanks was tendered the local profession by the association before final adjournment, for the royal manner in which they had been entertained.

The association was called to order promptly at 9 A. M. by the president, on Friday, May 11.

A paper on intestinal cancer by F. M. Agnew, was read by Dr. Grinstead, on account of Dr. Agnew's inability to attend.

O. F. Baerens presented an excellent paper on "Nasal Obstructions," which was discussed by Drs. Mann, Colter, Davis and McIntire.

Jas. M. Ball read a paper on "Diagnosis and Treatment of Iritis."

The first paper presented at the afternoon session was "Shock in Railroad or Accidental Injuries," by W. W. Essick.

A paper was read upon a somewhat new line by O. B. Ormsby, Jr., entitled "The Physicians' Union." This paper called forth considerable animated discussion by Drs. Booth, Baerens, Telford and Earnhart.

After several other interesting short articles had been read, the election of officers took place, resulting in:

President, W. F. Grinstead, Cairo.
1st Vice President, H. L. Gault, Sparta.
2d Vice President, O. A. Dean, Campbell Hill.
Secretary, O. B. Ormsby, Murphysboro.
Asst. Secretary, O. Bottom, Blair.
Treasurer, A. T. Telford, Menard.
Board of Censors, Wm. R. McKenzie, Chester; O. T. Guthrie, Sparta; W. T. Ingram, Murphysboro; J. W. Armstrong, Centralia; S. B. Carey, Cairo.

Next came the selection of the place for the next meeting, which developed quite a spirited fight between Centralia and Murphysboro, Drs. Essick and Ormsby championing Murphysboro, while Dr. Armstrong presented the cause of Centralia. Murphysboro was selected as the next meeting place, the meeting to be held Nov. 8 and 9, 1900.

Six new members were elected.

Adjourned.

Respectfully,
O. B. Ormsby, Secretary.

Approaching meetings of district societies:

Galva District, Oct. 14 and 15.

Aesculapian Society of the Wabash Valley, at Paris, Oct. 25.

District Medical Society of Central Illinois, at Pana, Oct. 30.

The prospects are good for the formation of a new society in Livingston county in the near future.

Marriages, Deaths, Change of Address

MARRIAGES.

Dr. Frederick Morris Rittenhouse, of Chicago, and Miss Mary L. Wood, of Cairo, Sept. 25, 1900.
Dr. Bert Rowe and Miss Nellie Vandever, of Paris, Sept. 27, 1900.
Dr. Chas. L. Koch, of Quincy, and Miss Susie F. Long, of Pittsburg, Pa., Aug. 28, 1900.
Dr. Thomas Hughes, of Chicago, and Miss Rose Myrtel Wakely, of Milwaukee, Sept. 5, 1900.
Dr. Frederick E. Place and Miss Lillie Wagner Webster, of Chicago, Sept. 8, 1900.
Dr. Morley Da Costa Bates and Miss Edith Gray Brown, of Chicago, Sept. 5, 1900.
Dr. Howard Lyle Simmons, of Oak Park, and Miss T. Isabelle Richards, of Riverside, Sept. 13, 1900.
Dr. Stanley Burr Dickinson and Miss Nellie Cummings Shurtleff, of Chicago, Sept. 26, 1900.

DEATHS.

(Furnished by the State Board of Health.)
Beebe, E. W., at Elizabeth, Aug. 25.
Clayton, Allen B., at Chicago, Sept. 16.
Eggman, Jerre P., at St. Louis, Aug. 25.

Garski, Felix, at Chicago, Aug. 21.
Jackson, Frances M. W., at Chicago, Aug. 7.
Oliver, E. W., at Mulberry Grove, Aug. 9.
Randall, R. A., at Lewistown, Aug. 19.
Schmidt, Ernest, at Chicago, Aug. 26.
Wheeler, J. D., at Decatur, Sept. 12.
Wright, Charlotte, at Gillman, Aug. 19.

CHANGES OF ADDRESS.

(Furnished by the State Board of Health.)

CHANGES IN CHICAGO.

Butler, Wm. J., 1331 Van Buren st. to 1485 Jackson Boul.
Brown, Alice B., Hahnemann Medical College to 375 Dearborn st.
Bieringer, W. A., 104 Warren st. to 1903 Milwaukee ave.
Brownstein, S., 16 Johnson st. to 374 S. Halsted st.
Berg, L. M., 2032 Michigan ave. to 2516 Indiana ave.
Benson, E. O., 69 Clybourn ave. to Augustana Hospital.
Baum, E. W., 32 Wallace st. to 1129 Lill ave.
Cullen, G. A., 176 23d st. to Illinois Steel Co.'s Hospital.
Colwell, N. P., 268 S. Lincoln st. to 203 S. Western ave.
Damiani, J., 145 Grand ave. to 174 N. Halsted st.
Friduss, Sam'l, 661 W. 14th st. to 4834 S. Ashland ave.
Fegan, Geo. R., 280 Leavitt st. to 960 Armitage ave.
Gleitmann, Emil, 710 Fullerton ave. to 1732 DiVersey Boul.
Goodwin, H. F., 511 Ashland Boul. to 682 E. 44th st.
Gurney, B., 6854 Wentworth ave. to cor. 69th st. and Wentworth ave.
Honberger, Frank H., 3808 Indiana ave. to 360 Oakwood Boul.
Hobson, Sara M., 7528 Saginaw ave. to 5400 Madison ave.
Heath, C. W., 16 Astor st. to 404 LaSalle ave.
Haeblerlin, J. B., 5645 Indiana ave. to Michael Reece Hospital.
Hollister, J. C., 2348 Calumet ave. to St. Luke's Hospital.
Jacubowski, S., 535 Garfield ave. to Cook County Hospital.
King, J. B. S., 242 Wabash ave. to 100 State st.
Lawbaugh, Elmer A., 2754 N. Hermitage st. to 237 LaSalle ave.
Michels, R. S., 1007 W. Harrison st. to 381 N. Clark st.
McGibon, W. P., 3130 Indiana ave. to cor. 53d and Jefferson ave.
McCall, F. B., cor. Exchange st. and Center ave. to 876 St. Louis ave.
MacMullen, Della M., 6401 Stewart ave. to cor. 65th and Wentworth ave.
Niemann, Caroline M., 24 E. 43d st. to 4934 Wabash ave.
Potter, W. E., 785 W. Madison st. to 819 W. Harrison st.
Palmer, R. F., 531 W. Adams st. to Cook County Hospital.
Prestley, J. P., 1273 Van Buren st. to 1361 Harvard st.

Piper, E. D., 2141 Jackson Boul. to 3521 S. Hermitage ave.
 Roehr, Chas. G., 433 N. Hoyne ave. to 822 W. Division st.
 Rubovitz, W. H., 4626 Indiana ave. to Michael Reese Hospital.
 Richmond, Y. G., 5494 Lexington ave. to 5611 Washington ave.
 Scott, R. D., 682 Adams st. to 3200 Wallace st.
 Shaff, J. N., 856 Polk st. to 766 N. Park ave.
 Tufts, Frank S., 295 S. Halsted st. to 2718 Michigan Boul.
 Weber, C. E., 5554 Ellis ave. to 4304 Grand Boul.
 Whitmore, Eugene R., 733 W. Harrison st. to College of Physicians and Surgeons.
 Wix, Geo. B., 304 Atwood Bldg. to Hotel Morrison.

CHANGES FROM CHICAGO.

Campbell, R. R., to Phoenix, Ari.
 Campbell, O. E., to Camargo, Ill.
 Detwiler, D. W., to Moravia, Ill.
 Daugherty, J. W., to Chillicothe, Ill.
 Haseltine, Burton, to Evanston, Ill.
 Harvey, F. P., to Dana, Ill.
 Honn, Wm. M., to Champaign, Ill.
 Lockwood, Chas. D., to Pasadena, Cal.
 Petersmeyer, W., to Ashton, Ill.
 Pearman, J. O., to Champaign, Ill.
 Pagelon, Otto H., to Iowa.
 Thoumaian, H. H., to St. Anne, Ill.
 Wood, Wilbur, to Decatur, Ill.
 Warloe, Thos., to Norway.
 Watson, F. V., to Antigo, Wis.

CHANGES TO CHICAGO.

Clancy, R. E., Cairo to 427 State st.
 Cohen, M. S., Grant Fork to 291 W. 12th st.
 Carlstein, J. A., to Ravenswood.
 Ford, W. R., Fort Atkinson, Wis., to 6537 Perry ave.
 Green, Geo., Aurora to 46 Van Buren st.
 Gano, F. F., New Castle, Pa., to Tremont House.
 Hackett, E. C., Dubuque, Ia., to 298 Maxwell st.
 Ide, Clarence E., Newport, N. H., to 192 Superior st.
 Kent, Jas. T., Evanston to 92 State st.
 Kleinspell, H. H., Cassville to 100 N. State st.
 Langhorst, F. H., Aurora to 58 Evergreen ave.
 Morgan, Mary E., Aledo to 247 W. Polk st.
 McCarthy, Richard, Itasca to 1019 Jackson Boul.
 McQuaide, Thos. L., Mt. Vernon to 1973 W. Madison st.
 Powell, Dwight C., Logansport, Ind., to Chicago.
 Porter, G. S., Clinton to Chicago Homeopathic Hospital.
 Pinkerton, W. J., Wapaca, Wis., to 3912 Cottage Grove ave.
 Palmer, F. W., Belvidere to 444 Englewood st.
 Walker, W. H., Utica, Neb., to 750 Harrison st.

CHANGES FROM ILLINOIS.

Barth, Geo., Rock Island to St. Louis, Mo.
 Beardsley, E. J., Champaign to Fowler, Ind.
 Bacon, D. N., Tennessee, Ill., to California.
 Boeheim, John J., Millstadt to ———
 Clausius, Max F., Barrington to United States Army.
 Dearduff, A. A., Mt. Vernon to ———
 Elmore, Sidney, Grantsburg to Oklahoma.

Foote, Lucius F., Elgin to Minneapolis, Minn.
 Foster, A. C., Blue Mound to Columbia, Mo.
 Gilbert, John, Paxton to Oklahoma.
 Hansing, Adolph E., Columbia to ———
 Rembe, R., Bloomington to Europe.
 Potter, Gurdon, Belvidere to United States Navy.
 Varney, Franklin T., E. St. Louis to ———

CHANGES TO ILLINOIS.

East, Harry H., St. Louis, Mo., to Xenia.
 Hill, W. H., Gentryville, Mo., to Peoria.

CHANGES IN ILLINOIS.

Allen, Archibald R., Huntsville to Mound Station.
 Allen, Ethan P., Stillman Valley to DeKalb.
 Allen, J. R., Ramsey to Custer.
 Allen, O. F., Mt. Vernon to Mt. Olive.
 Allen, A. D., Buckingham to Mound.
 Adams, Arthur R., Peotone to Tennessee, Ill.
 Brobeck, Alexander R., Wellington to Hoopes-ton.
 Blanchard, Jas. F., New Burnside to Creal Springs.
 Blackstone, Geo. R., Pennington Point to Table Grove.
 Barr, D. D., Prairie Home to Bloomington.
 Cheatham, R. H., Lancaster to Lexington.
 Donovan, H. V., Lovington to Toledo.
 Drake, H. T., Palzo to New Burnside.
 Dunn, G. W., Atlanta to Peoria.
 Hillyer, Warren E., Fowler to Huntsville.
 Hutton, J. W., Pittsburg to Rose Hill.
 Hoffman, G. H., Annawan to Yorktown.
 Jewell, Merritt, Phelps to Little York.
 Kurtz, R. L., Sigel to Neoga.
 Kors, M. L., Virginia to Peoria.
 Kilby, Edgar E., Emden to Congerville.
 Lucas, Geo. N., Malta to Elgin.
 Landers, J. R., Sidell to Caldwell.
 Lyster, A. J., Wolf Lake to Anna.
 McMilan, J. C., Berlin to New Berlin.
 Moffitt, Wm. T., Jacksonville to Blue Mound.
 Mayes, J. W., Dalton City to Sullivan.
 McGurty, P. H., Hume to Arcola.
 Miller, E. P., Long Lake to Sullivan.
 Mitchell, E. L., Roseville to Monmouth.
 Purdue, Perry F., Alto Pass to Lyndon.
 Range, F. W., Green Bush to Roseville.
 Rice, E. B., Orangeville to Brookville.
 Rose, W. M., Columbia to Grantsburg.
 Rigg, Roy W., Mt. Pulaski to Newark.
 Smith, Frank S., Vienna to Buncombe.
 Stewart, Harry J., Viola to Kewanee.
 Stuttle, A. L., Glenarm to Williamsville.
 Sanders, John F., Springfield to Bloomington.
 Saling, W. J., Elsworth to Stonington.
 Smith, H. D., Vandalia to Lovington.
 Smith, Alvin, Boaz to Ark.
 Tunnison, Ward C., Whitehall to Manchester.
 Vaughan, R. F., Sailor Springs to Flora.
 Van Doren, C. L., Hope to Urbana.
 Williams, H. O., Belknap to Galatia.
 Whiteaker, H. N., Olmstead to Goreville.
 Warren, J. B., Lake Forrest to Orland.
 White, Wm. G., Buncombe to Ava.

RETIRED FROM PRACTICE.

Connelly, J. L., Harristown.
 King, John A., Springfield.

CALENDAR OF MEDICAL SOCIETIES.

City.	President.	Secretary.	Time and Place of Meeting.
Alton Medical Society.....	W. A. Haskell, Alton.....	P. W. Beckman, Alton.....	1st Thursday of each month
Chicago Pediatric Society.....	A. C. Cotton, Chicago.....	F. S. Churchill, Chicago.....	Monthly
Chicago Society of Internal Medicine.....	John A. Robison, Chicago.....	Ed. F. Wells, Chicago.....	1st Friday of every month Oct. to June
Chicago Surgical Society.....	John E. Owens, Chicago.....	D. N. Elsendrath, Chicago.....	Quarterly in connection with Chi. Med. Soc.
Chicago Laryngological Society.....	E. Fletcher Ingals, Chicago.....	T. Melville Hardie, Chicago.....	Monthly, except July and August
Chicago Orthopedic Society.....	Frederic C. Coolidge, Chicago.....	John L. Porter, Chicago.....	2d Friday of each month
Chicago Academy of Medicine.....	W. L. Baum, Chicago.....	J. G. Kiernan, Chicago.....	1st Friday of each month
Chicago Bohemian Medical Society.....	Chas. Stulik, Chicago.....	S. J. Dvorak, Chicago.....	Every Wednesday evening
Chicago Medical Society.....	J. H. Stowell, Chicago.....	S. C. Plummer, 4305 Lake St., Chicago.....	2d Monday of each month
Chicago Gynecological Society.....	Ludvig Hektson, Chicago.....	George H. Weaver, Chicago.....	3d Friday of each month
Chicago Pathological Society.....	Thomas J. Watkins, Chicago.....	Wm. H. Kumpf, Chicago.....	2d Tuesday of each month
Chicago Ophthalmological & Otorologic Soc.....	Lyman Ware, Chicago.....	C. P. Pickard, Chicago.....	No regular meeting
Chicago Neurological Society.....	Richard Dewey, Chicago.....	Sydney Kuhl, Chicago.....	Quarterly
Chicago Medical Examiners.....	Denslow Lewis, Chicago.....	J. H. Stowell, 103 State St., Chicago.....	2nd Monday of each month
Demonstrator's Association of Chicago.....	H. A. Hadley, Chicago.....	M. L. Harris, Decatur.....	Elks Hall, last Thursday eve. each month
German Medical Society.....	Herbert C. Jones, Decatur.....	John T. Miller, Decatur.....	Every two weeks
Jacksonville Medical Club.....	M. Herzog, Chicago.....	Adolf Decker, Chicago.....	1st Saturday September, March and June
Medico-Legal Society of Chicago.....	C. P. Thompson, Jacksonville.....	H. C. Campbell, Jacksonville.....	Monthly
North Chicago Medical Society.....	N. S. Davis, Jr., Chicago.....	Wm. L. Baum, 103 State St., Chicago.....	Monthly
Ottawa City Medical Society.....	Carl Wagner, Chicago.....	J. N. Washington, Chicago.....	1st and 3d Tuesdays of each month, Sept. to June
Peoria City Medical Society.....	J. C. Hatheway, Ottawa.....	Wm. A. Pike, Ottawa.....	Monthly
Physician's Club of Chicago.....	O. J. Koskoton, Peoria.....	E. M. Eckard, Peoria.....	1st and 3d Tuesdays of each month, Sept. to June
Scandinavian Medical Society of Chicago.....	W. H. Wilder, Chicago.....	L. H. Metter, Chicago.....	3d Thursday of each month
South Chicago Medical Society.....	Geo. A. Torrison, Chicago.....	Thos. Warloe, Chicago.....	1st and 3d Tuesday of each month
The Medical Women's Club of Chicago.....	Chas. F. Swan, Chicago.....	John S. Davis, Chicago.....	1st Tuesday in each month
Twin City (Champaign and Urbana) Clinical Association.....	Gertrude G. Wellington, Chicago.....	Jeanie Trish Topinka, Chicago.....	2d and 4th Wednesdays of each month
Urbana Society of Physicians and Surgeons	H. C. Howard, Champaign.....	Jos. H. Finch, Champaign.....	1st Monday of each month
	Chas. A. Nichols, Urbana.....	E. S. Smith, Urbana.....	
County.	President.	Secretary.	Time and Place of Meeting.
Adams County Medical Society.....	Otis Johnson, Quincy.....	C. D. Center, Quincy.....	Monthly, on 2nd Monday at Quincy
Bureau County Medical Society.....	S. W. Ilophus, Walnut.....	A. E. Owens, Princeton.....	2nd Thursday of Nov. and May
Bond County Medical Society.....	J. F. Coop, Greenville.....	A. C. Gordon, Greenville.....	Meets in September and April
Clay County Medical Society.....	B. M. Bayles, Flora.....	W. E. Burgett, Louisville.....	Quarterly at Louisville
Champaign County Medical Society.....	T. J. McKinney, Gifford.....	J. C. Dodds, Tolo.....	Thurs. nearest middle of month, Burrham
Clinton County Medical Society.....	W. T. Gordon, Carlyle.....	M. Broening, Carlyle.....	May, Aug., Nov., and Feb., at Carlyle
Crawford County Medical Society.....	T. N. Rafferty, Robinson.....	L. J. Weir, West York.....	2d Thurs. in July, Sept., Nov., Jan. & May
DeWitt County Medical Society.....	A. E. Campbell, Clinton.....	J. C. Myers, Clinton.....	2d Tuesday in Jan., April, July and Oct.
Douglas County Medical Society.....	Maud E. Nichols, Tuscola.....	W. E. Rice, Tuscola.....	1st Thursday in Feb., May, Aug. and Nov.
Fulton County Medical Society.....	E. W. Regan, Canton.....	D. S. Ray, Cuba.....	
Gallatin County Medical Society.....	Alex. H. Colvard, Shawneetown.....	Geo. P. Cassidy, Shawneetown.....	1st Monday in May at Carthage
Hancock County Medical Society.....	C. L. Ferris, Carthage.....	R. L. Casburn, Carthage.....	Quarterly
Jefferson County Medical Society.....	J. H. Mitchell, Mt. Vernon.....	A. A. Dearduff, Mt. Vernon.....	
Jo Davies County Medical Society.....	H. T. Godfrey, Galena.....	D. G. Smith, Elizabeth.....	
Kankakee County Medical Society.....	Geo. H. Lee, Kankakee.....	J. H. Roy, Kankakee.....	
Lawrence County Medical Society.....			
Lake County Medical Society.....	L. M. Bergen, Highland Park.....	A. C. Haven, Lake Forest.....	1st Thursday of each month
LaSalle County Medical Society.....	R. W. Bower, Sheridan.....	E. H. Butterfield, Ottawa.....	Annually, 3rd Tuesday in April
Macoupin County Medical Society.....	J. S. Collins, Carlinville.....	J. P. Matthews, Carlinville.....	3d Tues. in April and Oct. at Carlinville
McDonough County Medical Society.....	D. A. Blair.....	S. C. Stremmel.....	1st Tuesday Jan., April, July and Oct.
McHenry County Medical Society.....			
McLean County Medical Society.....	Chas. E. Chapin, Bloomington.....	F. C. Vandervort, Bloomington.....	1st Thursday of each month at Bloomington

CALENDAR OF MEDICAL SOCIETIES—Continued.

County.	President.	Secretary.	Time and Place of Meeting.
Monroe County Medical Society.....	H. Ganter, Floraville.....	L. Adelsberger, Waterloo.....	In March and September at Waterloo
Montgomery County Medical Society.....	W. W. Douglas, Hillsboro.....	Jos. M. Trigg.....	1st Tuesday in May, 1901.....
Morgan County Medical Society.....	W. C. Cole, Jacksonville.....	Edw. Bowe, Jacksonville.....	2d Tuesday of each month at Jacksonville
Moultrie County Medical Society.....	B. F. McMennamy, Bethany.....	J. W. Mayes, Sullivan.....	2d Thursday of each month.
Pike County Medical Society.....	L. J. Harvey, Griggsville.....	R. H. Meln, Barry.....	Bi-monthly
Physicians' Protective Assn. of Jackson Co.	G. M. McKenney, Oregon.....	H. A. Mix, Oregon.....	1st Wednesday in January and July
Rock River Valley Medical Association.....	W. W. Essick, Murphyboro.....	F. A. Seed, Murphyboro.....	2d and 4th Saturday of each month
St. Clair County Medical Society.....	A. G. McBride, Sterling.....	J. P. Miller, Dixon.....	2d week in June and December
Schuyler County Medical Society.....	W. H. McLean, E. St. Louis.....	J. W. Stack, Rushville.....	Monthly
Saline County Medical Society.....	J. A. Harvey, Rushville.....	C. W. Hall, Freeport.....	1st Monday in each month.
Saugamon County Medical Society.....	J. W. Talman, Harrisburg.....	J. R. Baker, Harrisburg.....	Monthly, on 2d Monday at Springfield
Shelby County Medical Society.....	Geo. N. Kreidler, Springfield.....	E. P. Bartlett, Springfield.....	Annually
Tri-County Medical Society.....	Wm. J. Eddy, Shelbyville.....	A. G. Mizell, Shelbyville.....	1st Tuesday in June and December
Vermilion County Medical Society.....	W. A. Cochran, Danville.....	Leroy Jones, Hoopeston.....	2d Friday evening at Danville
Will County Medical Society.....	G. M. Pears, Joliet.....	E. E. Clark, Danville.....	2d Tuesday of each month
Winnebago County Medical Society.....	Norman Leeds, Rockford.....	Thos. J. Wagner, Joliet.....	Quarterly
Winchester County Medical Society.....	T. N. Miller, Rockford.....	J. H. Frost, Rockford.....	2d Tuesday each month.
Warren County Medical Society.....	Cynthia A. Skinner, Monmouth.....	Adella Nichol, Monmouth.....	Semi-Annually
White County Medical Society.....	W. W. Apple, Carmi.....	W. A. Steele, Carmi.....	2d Thursday in Jan., April, July and Oct.
Williamson County Medical Society.....	W. H. Bentley, Marion.....	G. W. Evans, Marion.....	1st Monday of Jan., April, July and Oct.
Woodford County Medical Association.....	C. E. Davis, Peoria.....	Frank Stubbiefield, El Paso.....	1st Tuesday in May
District.	President.	Secretary.	Time and Place of Meeting.
Ascenclapian Society of the Wabash Valley Association.....	Z. T. Baum, Paris.....	H. McKennan, Paris.....	Annually, Chicago or Springfield
Brainerd District Medical Society.....	Col. Nicholas Senn, Chicago.....	Lt. Col. Chas. Adams, Chicago.....	4th Thursday of Jan., April, July and Oct.
District Medical Society of Central Illinois.....	J. L. Lowrie, Lincoln.....	Katherine Miller, Lincoln.....	Last Tuesday in April and October
Fox River Valley Medical Association.....	J. N. Neims, Taylorville.....	C. R. Spicer, Taylorville.....	At Elgin in May and at Aurora in Nov.
Galva District Medical Society.....	C. L. Smith, Aurora.....	M. R. Robbins, Aurora.....	Annually, 1st Tuesday in May at Galva
Iowa & Illinois Cent. District Medical Assn.	M. T. Ward, Toulon.....	C. W. Hall, Kewanee.....	Quarterly
Medical & Surgical Society of Western Ill.	C. C. Carter, Rock Island.....	G. E. Decker, Davenport, Ia.....	At Kewanee
Military Tract Medical Association.....	H. W. Smith, Roodhouse.....	H. A. Chapin, Whitehall.....	Annually, 1st Tuesday in December
North Central Illinois Medical Association.....	E. J. Sutton, Canton.....	C. B. Horrell, Galesburg.....	Murphysboro Nov. 8 and 9, 1900.....
Southern Illinois Medical Association.....	P. M. Burke, LaSalle.....	Geo. A. Dicus, Streator.....	
	W. F. Grinstead, Cairo.....	O. B. Ormsby, Murphysboro.....	

ILLINOIS Medical Journal

The Official Organ
of the
State Medical Society



A Monthly Bulletin
Edited by the
Publication Committee

Printed by
THE ILLINOIS STATE JOURNAL COMPANY.

Entered in the Springfield Postoffice as Second-Class Matter.

Volume L. New Series, Vol. II. } Number 6. }	Springfield, Ill., November, 1900.	{ Subscription, \$3 a Year. Single Copies, 25 Cents.
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TABLE OF CONTENTS.

JUBILEE BANQUET.

Letters From Absent Members—	
Ephraim Ingals, M. D., Chicago.....	243
E. P. Cook, M. D., Mendota.....	243
Toasts—	
The Founders { Robert Boal, M. D., Lacon..	244
{ L. G. Thompson, M. D., Lacon	247
Medical Education for Fifty Years in Illi- nois—N. S. Davis, Sr., M. D., Chicago...	248
Then and Now—James L. Stewart, M. D., Peoria	250
Reminiscences of the Early Days and the Hardships of the Pioneer Doctors—Win. J. Chenoweth, M. D., Decatur.....	251
The Parson After the Doctor—Rev. D. F. Howe, Springfield.....	253
Law and Medicine—Hon. Charles P. Kane, Springfield.....	254
The Ideal Physician of the Future—Frank P. Norbury, M. D., Jacksonville.....	256

ORIGINAL ARTICLES.

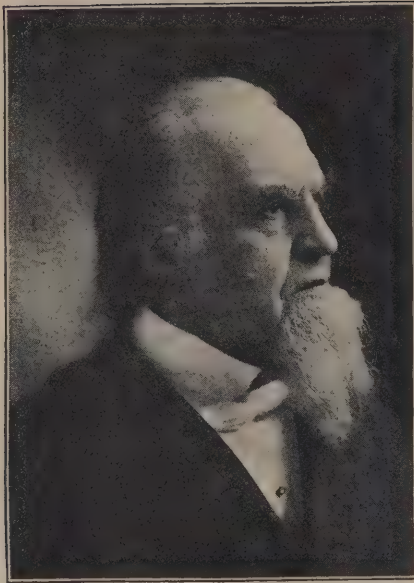
Gonorrhoeal Conjunctivitis — Allen T. Haight, Chicago.....	257
Leukaemia and Splenic Pseudoleukaemia —Everett J. Brown, M. D., Decatur.....	262
The Treatment of Senile Enlargement of the Prostrate With Especial Reference to the Galvano Caustic Radical Treat- ment—F. Kreissl, M. D., Chicago.....	268

EDITORIALS.

Jubilee Issue.....	278
Abolish the Coroners.....	278
New Member of the State Board of Health.	278
Amputation of Leg	279
The Fenger Banquet.....	277
List of Delegates to Fenger Banquet.....	279
Notice to Delegates to Fenger Banquet....	277
For the Good of the Profession.....	280

COUNTY AND DISTRICT SOCIETIES.

Vermilion County Medical Association	281
Adams County Medical Society.....	281
Moultrie County Medical Society.....	282
Military Tract Medical Association	282
McLean County Medical Society.....	282
Sangamon County Medical Society	283
Chicago Pathological Society.....	283
Morgan County Medical Society.....	285
Macoupin County Medical Society.....	285
Brainard District Medical Society	286
Marriages, Deaths, Changes of Address....	286



DR. JOHN H. HOLLISTER, CHICAGO.

Toast Master of Jubilee Banquet,
May 16, 1900.

The Illinois Medical Journal.

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VOL. L.
New Series, Vol. II. }
No. 6.

Springfield, Ill., November, 1900.

{ SUBSCRIPTION
\$3.00 A YEAR.

JUBILEE BANQUET.

The special jubilee features of the semi-centennial meeting were combined to the annual banquet which was given at the Le-land hotel, Springfield, Wednesday, May 16, at 8 p. m. Nearly two hundred representatives of the profession and their ladies surrounded the festal board. The large attendance, the presence of so many veterans and the admirable responses combined to make the celebration a note-worthy occasion.

Dr. John H. Hollister, of Chicago, acted as toastmaster.

Rev. D. F. Howe invoked divine blessing, after which the Secretary read the following letters, from Drs. Ephraim Ingals, of Chicago, and E. P. Cook, of Mendota, regretting their inability to attend the banquet.

Chicago, April 28, 1900.

J. H. Hollister, M. D.

My Dear Doctor—I have received your letter asking me, if at the banquet of the Illinois State Medical Society on the approaching semi-centennial meeting I would respond to the sentiment "Personal Reminiscences by a Graduate of Rush 50 years Ago." I count it a compliment that you will trust me to enter on so dangerous a topic. It pains me to say that I shall not be able to attend the meeting. It would give me great pleasure to greet again old friends that I have so often met on similar occasions, and many others that I know chiefly through their contributions to our transactions, and in current medical literature. In place of this, I must content myself as well as I can in the happiness I receive by viewing daily a beautiful pictured group that graces my table, which includes from among the members of our Society the familiar faces of Doctors Robert Boal, Samuel Thompson, E. P. Cook and Wil-

liam O. Ensign. Having been constantly and actively engaged in the work of our profession since 1847 in Illinois, I have witnessed the feeble infancy of our medical institutions of learning, and their steady progress to their present elevated position, which is due in considerable part to the faithful labors of members of this Society. I believe, too, that I can discern the greater triumphs that will mark our future achievements, for

" 'Tis the sunset of life gives us mystical
lore,
As coming events cast their shadows
before."

Beset by many difficulties, we, the seniors in our profession, have done what we could to smooth the path for our juniors, who are now taking the burden from our shoulders. I feel that we have planted good seed and laid solid foundations, and we confidently commit our unfinished work to more youthful hands. While I live I shall ever hold the Illinois State Medical Society in loving memory.

Yours truly,

Ephraim Ingals.

Mendota, Ill., May 14, 1900.

To the Officers and Members who may be gathered around the festal board of the Semi-Centennial Dinner of the Illinois State Medical Society—Greeting:

For the second time in thirty-seven years I fail to be with you at the annual meeting. I won't complain if you don't, that I am compelled to forego the pleasure of being with you and you to get along without me as best you can.

During all that time, twice including the present, has sickness in my own family or person prevented attendance.

I need not say anything to assure you of my interest in all relating to the interest of the medical profession of Illinois, as represented in the State Society, and in you

officers, members and guests of the Society.

From year to year the Society becomes more and more a truly representative body in which all of true professional spirit should seek direct or indirect relations.

With increasing local organization of the profession of the State, in county, city and district, there will be a steady growth of the State Society.

A growth made up of the best material in the State—of those actively engaged in advancing the educational, sanitary and scientific work of medicine broadly considered in its relations, not only to the special work of the profession, but also far reaching in its benefits to the public generally.

Had it been possible to be with you tonight I should have enjoyed telling you some of my recollections of several of the earlier members of the Society who are not now with you, especially of some who were active workers during the second to early part of the fifth decade of the Society.

I congratulate you on having with you some of the pioneers who were ever faithful to the Society, and active in the advancement of scientific medicine. I doubly congratulate you in having with you tonight two of the original organizers of the Society, Drs. Boal and Thompson, and to them each I send especial congratulations that they are able to be with you to receive such kindly attention as they so worthily deserve, and you are so pleased to give.

Permit me in conclusion to express my pleasure that the mantles of the fathers in medicine in our State and State Society have and are falling upon the shoulders of worthy sons and successors—men and women—who have superior qualifications to continue the grand achievements of nineteenth century science and medicine, with all it promises into the brightness and possibilities of the twentieth century.

With many wishes for the health and happiness of you all, and the increasing growth and usefulness of the Illinois State Medical Society, I am as ever,

Yours truly,

E. P. Cook.

By unanimous vote the following telegram was sent to Drs. Ingals, Cook and Barkly.

"The Illinois State Medical Society, in convention, expresses sympathy and regrets your absence.

E. W. Weis, Secretary."

Responses to various toasts were then proceeded with.

The Toastmaster, in referring to the revered physicians, who were founders of the Society, paraphrased the words of Goldsmith,

"Eternal blessings crown each friend,
And round each dwelling, guardian
saints attend."

The venerable Dr. Robert Boal, of Lacon, was then introduced, and responded to the toast, "The Founders."

On rising to speak, he was greeted with round after round of applause. He spoke as follows:

Mr. Toastmaster, Ladies and Gentlemen of the Illinois State Medical Society—For one of my age, I perhaps have very few and not as many infirmities as most persons, but one infirmity I have is weakness of voice, and I am satisfied I cannot be heard more than 20 or 30 feet from this table. My enunciation is not so clear and distinct and forcible as it was twenty years ago. I have therefore delegated my friend on the left, your efficient and able secretary, to read what I have written with regard to the founders of the State Medical Society. I do this, ladies and gentlemen, and Mr. Toastmaster, for the reason that I was the first friend he had in this world, and for my kind offices conferred upon him at that particular time, the only response I got was a very loud and lusty cry. (Laughter.) In order to have him reciprocate I will now ask him to read what I have written in regard to the toast for which I am slated (Applause.)

THE FOUNDERS OF THE ILLINOIS STATE
MEDICAL SOCIETY.

As a prologue to what I wish to say to night, I quote from a distinguished man

ber of our profession, Oliver Wendell Holmes:

"I come not here your evening hour to sadden,
A limping pilgrim leaning on his staff;
I, who ne'er deemed it sin to gladden
The vale of sorrow with a cheerful laugh."

This is the third time in my long life that I have used a manuscript or type written speech. Once in an address, when I was honored with the presidency of the Illinois State Medical Society, in 1882, and again in 1888, when a similar honor was given by the alumni of the Medical College of Ohio, and the third time when I appear before you tonight.

In my early manhood and middle age, I made speeches in every school house, village and town in four counties without note or manuscript. In my old age I fear to trust myself in an extempore address. The word I wish to use eludes me, and it requires a pause before I can catch it. To avoid such a contingency I use on this occasion a type written response to the toast upon which I am expected to speak, "The Founders of the Illinois State Medical Society."

To one born in the first decade of the expiring century, now near its end, and who has witnessed through all its subsequent decades the wonderful advances made in science, and art, in inventions and discoveries, is an increasing source of admiration and wonder. The history of the human race, affords no parallel to it. We live better, dress better, we read more, our children are better educated. The cabin has been supplanted by the comfortable dwelling, and the cottage has been exchanged for the palace. We know more of the laws of health and proper sanitation, which has added to the health and comfort of the people.

Since my retirement from a long and active professional life, embracing a period of sixty-five years, I rested in the belief that my days of public speaking were over, and in that particular my life's work was ended. On ordinary and common occasions I would be very reluctant to appear before such an intelligent and cultivated

audience as I face tonight, but this is no ordinary occasion, and I feel that I am highly honored in giving me the opportunity to participate with you in celebrating the fiftieth anniversary of the founding of the Illinois Medical Society. Fifty years ago in the old State house, now the Sangamon court house, from twelve to fourteen physicians of the State met and organized the society whose jubilee year we celebrate tonight. Two came from Chicago, Doctors Herrick and Blaney; two from Peoria, Doctors Rouse and McNeil; three from Springfield, Doctors Jayne, Helm and Henry; one from Carlinville, Doctor J. A. Halderman; one from Albion, Doctor Samuel Thompson; one from Batavia, Doctor Edwin Meek; one from Princeton, Doctor Paddock; two from Lacon, Doctor L. G. Thompson and myself. Those mentioned were constant attendants at the convention. Others may have dropped in but took no active part in its deliberations. Their visits were short and intermittent. It may interest you to learn something about these founders of the Illinois State Medical Society? I will try to describe some of their characteristics, as I saw them and as I see them now.

Doctor Herrick, was a man of good physique and of imposing presence. Was surgeon of one of the Illinois regiments in the Mexican War, was afterward professor of anatomy in Rush Medical College, and was the first president of the Illinois State Medical Society. He was a man of fine attainments. Of his subsequent history I know little. He was one of the most prominent and active organizers of the Society.

Doctor Blaney was professor of chemistry in Rush Medical College. He was a refined and courteous gentlemen, a man of ability and in conjunction with Doctor Herrick did much to start the Society. He was tall, lithe, genial and well educated. I never met him again but formed a favorable opinion of him at that time.

Doctor Rudolphus Rouse, the president of the convention, was of middle height, compactly built, with an expressive countenance and a smile as sweet as a woman's. He possessed both wit and humor and was

often sarcastic. His humor was at times unconscious to himself, as illustrated from the incident I had from his own lips. He had a patient with cancer of the breast, having relatives in Philadelphia. She went there at their suggestion to consult Doctor Gross. He advised an operation. Doctor Rouse being her family physician she sent for him. He also advised an operation. During the time he was there Doctor Gross invited him to one of his clinics. The doctor gave him an introduction to the class, as the "Sucker Doctor" from Illinois. Doctor Rouse responded to the introduction, saying he was from Illinois and entitled to the name of "Sucker," but assured them that it was a long time since he sucked anybody. He was then seventy-five years of age. The class applauded and cheered him. He told me he was not aware that he had said anything to make them do so. He was unconscious of his humor. He was one of the pioneer doctors, coming to Peoria in 1832. He had a large and lucrative practice, and during his long chronic illness, frequently rode to the cemetery to superintend the erection of his monument and he often expressed the fear that he would die before it was completed.

Doctor McNeil was a Methodist minister as well as a doctor. He was tall and well proportioned, a gentlemen in every sense of the word. For six days in the week he practiced medicine and preached on Sunday, thus ministering to the temporal and spiritual needs of his people.

Doctor Gershom Jayne was well advanced in years, but was a constant attendant at the convention, and was much interested in its proceedings and made some valuable suggestions to the members. As I remember him he was a pleasant and agreeable man. I attended a reception at his home in the winter of 1845. As they say down south, "I had broken" into the State Senate, was spending the winter in Springfield, and as a member of the legislature, received invitations to several social functions, and this was one of them.

The only acquaintance I had with Doctor Meredith Helm was made in the sessions of the convention. I was favorably

impressed with his quiet manner and bearing. I know nothing of his subsequent life and history.

Doctor A. G. Henry was an active, but not a constant attendant at the convention. He mixed politics with his profession and so did I. He was a personal and political friend of Abraham Lincoln, so was I. I knew Doctor Henry well. He was a bright, active, energetic man. His professional attainments were much above the average. He was an astute politician, an eloquent "stump speaker." He received a federal appointment on the Pacific coast, I do not remember what it was. After that I saw him no more. He was lost by shipwreck on the Pacific ocean. He was one of the vice presidents elected at the convention, Doctor Rouse was the other.

Doctor Samuel Thompson, of Albion, was one of the most industrious and capable members of the convention. He was of English descent. I do not know whether he was born in England, or whether he was a descendent of one of the English colonists who settled in Edwards county. He was devoted to his profession, was quiet, unobtrusive, with a large share of common sense and a man of liberal education and of great professional attainments.

Doctor J. A. Halderman was the first treasurer of the Society.

My good friend, Doctor A. C. Corr, has kindly furnished me an extract from his "History of Medicine and Medical Men of Macoupin County." In regard to Doctor Halderman, he says: "The most remarkable man for the purposes of our sketch was Reverend J. A. Halderman, M. D., who came to Carlinville in 1843. This estimable physician has many worthy traits of character that would be delightful to dwell upon. He was the first to represent this county in an organized medical society, which he did by becoming a charter member of the Illinois State Medical Society, organized in 1850, keeping up his membership till 1858."

Doctor Edwin G. Meek, was an active and influential member of the convention. In 1850 he, in conjunction with Doctor

John Evans, comprised the editorial staff of the Illinois Medical and Surgical Journal, which was established in 1844.

In 1851 the same editors appear. Doctor Meek, was in his day, one of the most prominent alienists in the State. He was connected with the private insane institution at Batavia, in some way which I can not recall. He was a man of pleasing address, short in stature, well educated and intelligent.

Dr. S. A. Paddock was the youngest member. He was a bright, active, energetic young man, a graduate of an eastern college, and secretary of the convention. In manner, bearing and "make up," he somewhat resembled the late Senator Stephen A. Douglas. At the outbreak of the Civil War, he joined the Union Army, in what capacity I do not know, probably as surgeon for which he was well qualified. He died while in the service, either from an accident or as the result of it.

I have no recollection of Dr. Edward Roe, as a member of the convention, nor of Doctor B. F. Stephenson, the founder of the Grand Army of the Republic. Both may have made a passing visit to the convention, but neither were members of it.

I believe I have gone through the list of founders of the Illinois State Medical Society, with the exception of Doctor L. G. Thompson and myself. Of the latter, modesty forbids me to speak. Of the former, who is present with you tonight, I have had the closest friendly and professional relations for over half a century. The current of our friendship has run on like that of a peaceful river, unvexed by a wave of anger, undisturbed by a ripple of ill will. Doctor Thompson and myself are the only "remaining links in the chain connecting the past with the present" of the Illinois State Medical Society. How soon they will be severed, no one can tell. It will not be long before both will join their colleagues of fifty years ago, and with them will solve the mysterious and perplexing problem of human destiny.

My sincere wish is that the Illinois State Medical Society may increase and prosper, and exert an influence in the coming cen-

tury, which will honor the medical profession, and the great State whose name it bears.

At the conclusion of Dr. Boal's response, Dr. L. G. Thompson was introduced, who responded to the same toast, "The Founders."

Dr. Thompson was warmly greeted on rising to speak. He said:

Mr. Toastmaster, Ladies and Gentlemen—Our honorable friend, Dr. Boal, has been unable to address us except through his amanuensis. If I had the talent that he once had, I should esteem it a great privilege to address you on this occasion, but as I am inexperienced in public speaking, I shall perhaps find it difficult to interest you.

I have been acquainted with Dr Boal for many, many years. I first made his acquaintance in 1848. As he has failed to say anything of himself, I suppose it is proper for me to give my recollections and impressions concerning him. I have hesitated somewhat as to whether I ought to give a full account of my impressions of him in his presence, but in thinking the matter over I came to the conclusion that if I did not do so, he would never know. (Laughter.) So I shall try, as best I can, to represent him as a fellow citizen of our community. A gentleman friend of mine, when he learned that I was going to Lacon to live, when I first came to the State, told me that there was a gentleman living there, a physician, whom I had better become acquainted with. He further added, "you will find him to be a gentleman, and he will do you good, and not any harm." I have found that to be true. When I think of how I saw Dr. Boal in those early years going to and fro all over our counties to see the sick, night and day, in all kinds of weather (he was then in the prime of life and capable of enduring a great deal of hardships), I feared that he might do all of the business, and that I would have none. (Laughter). But he never put a stone in my way, and I have always believed that he was disposed to assist me. Being a young physician when I went to Lacon, I needed assistance, and he always

gave it to me. After I had been there a short time, the doctor invited me to visit Springfield with him to attend a convention for the purpose of organizing this Society. I esteemed it a privilege to accompany him. It took us $2\frac{1}{2}$ days to drive over the country. It was a pleasant drive. We had two horses; the weather was delightful; the roads were in good condition, and the prairie was covered with grass, wild flowers and evergreens. These perfumed the atmosphere and heightened the pleasure of our trip. There was wild game to be seen in crossing the country, but no dwellings except along the skirts where there were pieces of timber. The people did not get out upon the prairie very much; they were afraid to get far away from the timber.

Dr. Boal does not say very much about Dr. Thompson at this convention. Dr. Thompson was sick with the ague; he could not have contributed much to the interest of the convention. Considering the condition he was in, he was excusable. He was able to attend some of the meetings, but only a part of the time.

If we enter upon the subject of the Founders of the Society, those who have contributed to this Society since have done much more than we. There are persons here who have attended the meetings and exerted their influence to sustain the Society continuously, who are deserving of far more credit than myself.

As for my friend Dr. Boal, I wish to finish what I have to say concerning him. I would contrast him with what Brutus said of Mark Antony, when he said that, "The elements are so mixed in him, that nature may stand up and say to all the world, this is a man." (Applause.)

The temple of medicine, gentlemen, is a great and beneficent structure. It has been in process of construction for more than 2,000 years, and it is still incomplete. It has had a great many architects, a great many builders, who have done a little towards the erection of this structure, and some of them have contributed something to its foundation and to the material of its structure. Such now are at its head, while

many more have been unable to contribute anything. Every stone that goes into this structure must be a perfect one, a tried stone. Some have been able to add but a single stone. If a man can do that, it will give him fame that will endure. If we should go round among those who have done the most towards building this great temple, we should have to go back to the fathers of medicine, the old founders, Hippocrates and Galen, those two physicians who went to Alexandria to study anatomy, and after them not much progress was made until we come to the sixteenth and seventeenth centuries, and then we had such men as Harvey and Sydenham. It is unnecessary for me to mention what those men have done for medicine. Their names will recall to your minds what was accomplished during those periods. When we come to the eighteenth century we find such men as Boerhaave, von Haller, Morgagni, and von Helmholtz, who did so much toward the advancement of medicine. When we come to the first quarter of the nineteenth century, or perhaps the last quarter of the eighteenth century, we have those Frenchmen who did so much for anatomy, physiology, pathology, who laid the foundation of diagnosis, who studied so much the phenomena of disease, such as Lænnec, Bichat, etc. Those are the names of men who did so much in those days toward the erection of this great temple. Later we come to John Hunter. When I was a medical student they talked of what Lænnec had done in the way of physical diagnosis, and Majendie and Bell and Marshall Hall. (Applause.)

The Toastmaster: It affords me very great pleasure to introduce as the next speaker our veteran and venerable friend, Nathan Smith Davis, who will respond to the toast, "Medical Education for Fifty Years in Illinois."

"A wise physician skilled to heal,
Is more than armies to the public weal."

After the outburst of applause which greeted Dr. Davis, on rising to speak, had subsided, he spoke as follows:

Mr. Toastmaster, my Friends—I know

of no way in which I can give you a better idea of the progress of medical education in Illinois during the last 50 years than to tell you in the fewest possible words what constituted a medical education at that time in this State. I happened to come just a year before the commencement of that 50 years to be identified with its medical education. I have been identified with it during all the years since. At the commencement of that 50 years no preliminary education of physicians was required except to know how to read and write. They did not even require ciphering (laughter), and the only test of reading and writing was that applicants had to write a thesis as one of the conditions preliminary to graduation. That was the only test of preliminary education that was called for.

As to medical education itself, there was a valuable part of it that ought not to be forgotten. There was still a remnant of that education which takes place in the preceptor's office. The would-be doctor picked up some knowledge with the preceptor in making his daily rounds, otherwise the education demanded no clinical instruction. There was no requirement for clinical instruction as we understand it at the present time. What we did get was an occasional case of surgery that came in, upon whom the professor would operate gratuitously, in case the patient appeared before the class, and perhaps the number of surgical cases would not amount to more than half a dozen during the term. But what was the scope of medical instruction that constituted the education of that period? Only two courses of medical college instruction were required. The first and second year courses were very much alike, for there was no gradation. There were no first and second year students who took successive year courses. Each professor began at the commencement of his topic and got as near the end as he could, which was generally about half way before the term closed. The next year he began where he did before, and he did well if he got as far as he did the first time. (Laughter.) There were two college courses of sixteen weeks each, and the sixteenth week cut in

the middle. Such was the status of medical education not only in Illinois, but all over the United States at that time. Illinois was not behind the rest of the world. There were no requirements for individual laboratory instruction; we had not begun the study of microbes then. When I came to Illinois in the fall of 1849, I brought, I think, the first microscope that was used for medical college instruction this side of the Allegheny Mountains. (Applause.) On my arrival, I found a hundred and twenty students, all told, in the medical schools in the State of Illinois at that time. I divided them up and had a dozen of them come to my office, where, by means of the microscope, I demonstrated to them clearly the circulation of the blood and a few other primary things. What progress have we made? Where do we stand at the end of fifty years? The bars are put up, so that now we require of all matriculants to medical colleges of reputation a fair academic education. They must have graduated from a high school or from some literary institution, or else undergo an examination to show that they possess the necessary preliminary education to enter upon the study of medicine. Now, our medical colleges require absolutely four consecutive years that shall be devoted to the study of medicine. What a contrast between two courses of sixteen weeks each, a repetition of one course over the other, and four consecutive courses of from six to nine months each year. And what has been the progress in regard to the numbers that have been brought into the field of medicine? I have said that we had a hundred and twenty students when I began the practice of medicine in this State fifty years ago. I suppose today the number of medical students graduated in Illinois in the schools of regular medicine is somewhere between two and three thousand, and if you fill up the gap, you will find that Illinois has not been lagging after Eastern colleges, nor after other medical schools, but that the men in Illinois have done more proportionately to their numbers in advancing and planting medical education on the broad basis that it stands today than those

of any other state in this Union. (Applause.) I speak advisedly, not boastingly, but knowing what I say. Where did they get the first college that graded its instructions? Not in Boston, where they tried to establish it, but they found out that we had been at it ten years before in Illinois. As the result of our efforts medical education is now on a sound and broad basis. You need not go to Europe to acquire a medical education, except to boast that you have been over the other side of the Atlantic, if you have money enough. (Applause.) If you want knowledge, the opportunities and facilities for acquiring it are just as good on this side of the Atlantic as they are any where else in the world. (Loud applause.) I am free to say, that any young man or young woman who wants simply knowledge can get more of it by diligence and in seeking the proper place in their native country than they can get in any other land in the world. (Applause.)

I am reminded that I have but three minutes more to speak to you. I am proud to be with you. Whether I ever meet you again or not, I must thank you for the utmost kindness I have met wherever I have gone. I have simply lived on one principle of life which I stumbled upon early. It is this: Never to engage in any business the results of which would be detrimental to society, but always engage in something calculated to do good to my fellow creatures and to exert my best efforts to render this man or that woman the best possible service that I could give them. The result has been that I have pursued a happy, a pleasant, a comfortable life, and I am ten years younger than my friend over there (referring to Dr. Boal). I do not know what his exact age is. (Here the stenographer asked Dr. Boal his age, and he replied across the table, "Ninety-four.") I have practiced medicine longer than Doctor Boal. I have practiced it sixty-three and a half years.

Dr. Boal: I have practiced medicine for sixty-five years. (Laughter.)

Dr. Davis: I began younger than you

did. (Renewed laughter.) Lastly, I wish every one of you a most happy and successful life, and I am sure you will have it, if you work diligently and do nothing but spread comfort, cheerfulness and happiness around you, for there is no happiness in this world so great as that which comes from making others happy. (Loud and prolonged applause.) [At this juncture, at the request of the Toastmaster, the members of the Society and invited guests arose and gave the Chautauqua salute for Drs. Boal, Davis and Thompson, after which there were cries of "Three cheers for the boys," and these were lustily given.]

The Toastmaster: We will now listen to Dr. James L. Stewart, who will respond to the toast, "Then and Now."

"The advance guard builded well,
And better than they knew.
The coming host with one accord,
Bids all hail! to the tried and true."

Dr. Stewart said: Ladies and Gentlemen—After hearing what I have heard to-night, I stand before you as a junior. (Laughter.) I have only practiced medicine fifty years. (Renewed laughter.) This is the semi-centennial of the State Medical Society. It is the semi-centennial of my professional life. Fifty years is long or short, as we look at it. If we look straight back it is very short, but if we follow it through its winding or tortuous course, it is a long, long time. Any way we look at it, it is a pretty large portion of an ordinary man's life. Fifty years ago the State of Illinois was a new country, very sparsely settled. The whole State contained a population of 800,000, not more than one-half the present population of Chicago. The prairies were all in their primitive beauty. I tell you, it was one of the finest, grandest, richest countries that lay under the sun. It is now one great garden. It is checkered in all directions with railroads; it is dotted from end to end with villages, towns and cities. Fifty years ago the physicians who came here were pioneers. They came from the East to grow up with the country, and I have this to say: It was a great mistake on their

part, because the medical profession is always better in an old than a new country. Take, for example, the gentleman whose name has been mentioned here tonight, who was president of the preliminary meeting for organizing this Society fifty years ago—Dr. Rudolphus Rouse. He was from Brooklyn, New York. He was a man of talent, of education, and a polished gentleman. He could just as well have stood at the head of the profession of Brooklyn as in Peoria, and he would have made ten times as much money and had a great deal easier and more pleasant time. Take our venerable friend, Dr. Boal. He formerly lived in Cincinnati and came to Lacon when it was just a little village in the prairie. He has ridden all over the prairies amid the storms of winter and in the mud, at all hours and at all times, over sparsely settled regions for years and years, when he could just as well have had a first-class practice in the city of Cincinnati. On the other hand, take our learned and venerable friend, Dr. Davis. He struck it rich. He came here to a new country; he settled in Chicago, and grew up with a city that is today the wonder of the world, and by his great talent and his indefatigable labor he has raised himself into the first rank of the medical profession of the United States in a city of the first rank among the cities of the world. (Applause.) Take Dr. Thompson; I do not know where he came from, but he could have done better. As I have said, the profession is always better off in an old settled country than in a new unsettled one. Progress is slow, tedious and laborious, and we are poorly paid in all new countries.

Speaking for the earlier physicians, notwithstanding they did not have as good opportunities for lectures and for acquiring a medical education as are afforded today, yet give a man a little brains to start and he can make a physician of himself. I want to say another thing, that fifty years ago there were some grand, noble physicians. We had some great and good textbooks, so that any one, who wished to accomplish what he had in view by a long

course of study, namely, to practice medicine, could do it. Take Watson's work and Wood's practice, and any man who will study them thoroughly today cannot help being a good physician.

There have been introduced a good many improvements, but not so many as the majority of people think. A great many people entertain the idea that about all that is known in the profession of medicine has been learned in the last fifty years. There never was a greater mistake. Of course, many things have been learned since that time, but there was a great deal known then. The greatest improvement that has been made in medicine is along the line of prophylaxis and sanitation. We are preventing a great many of the epidemics that formerly swept the country. Years ago we had an epidemic of yellow fever in New York. That city can never have an epidemic of this disease again. About fifty years ago, for three or four years, there were epidemics of yellow fever in Charleston, Mobile, New Orleans, and other southern cities. Now, it is a rare thing to hear of epidemics of this disease prevailing in those cities. It is only thirty years since the city of Memphis was converted into a charnel-house by a terrible epidemic of yellow fever. Why? Because it was in such a horrible, filthy condition, and when the disease was introduced there it spread like the great Chicago fire, and after it got well underway it was as difficult to control the one as the other. (Applause.)

The Toastmaster: The next toast to be responded to is, "Reminiscences of the Early Days and the Hardships of the Pioneer Doctors."

"These men could better gild a pill,
Or make a bill; or mix a draught,
Or bleed; or blister, than these who follow after."

I call upon Dr. W. J. Chenoweth to say a few words on this subject.

Dr. Chenoweth said: I do not know the reason why I have been asked as a pioneer to respond to this toast because I have only been in Illinois forty-six years. So far as hardships are concerned, I do not know

anything about them personally. I never had any hardships. My father never had a hat on his head or a shoe on his foot until he was thirteen years of age. My grandfather was shot in the hip with an arrow and lived for sixty years a sufferer. His mother was stabbed seven times by the Indians and her scalp taken. She lived twenty-years afterward. I came to Illinois twenty-five years after Decatur was a town. This was in 1829. I did not locate there until 1854. At that time we had about five hundred people in Decatur. The doctors we had there then were cotton traders. To be sure, I have had long and hard rides, but I had to attend to calls of the sick. I have come in at all hours of the night, after making calls, with the mud up to my knees. Sometimes, in the winter months, I found it difficult to dismount from my horse, but after once being helped off, I could have my feet washed in the snow, then go to bed, and sleep as soundly as anybody. The hardships we had to contend with were of a different character. I will tell you about one of them in particular.

One of the first things that impressed me as being hard in the practice of medicine was the case of an Irishman who came into my office shortly after I located in Decatur. He had fever and ague. I gave him a little calomel and quinine. The next day a friend of his came to my office and said he was getting along fine; that he had raised himself up in bed and, after taking one of these things (referring to pills), dropped dead. That was a hardship, to be sure. There is nothing more trying to me at this day of my career than to lose a patient; I care nothing about the little exposure, the cold, the rain, to which I am subjected. I may say to you, that I was never really sick a whole day in my life, that is, I never went to bed and remained there a whole day in my life. So under those circumstances, I am the last man on earth that you should call upon to talk about hardships. (Applause.)

So far as our medical studies were concerned, we had to study. I took my first course at the Ohio Medical College, and

my second course at the University of Louisville. We had such men as Drake, Austin Flint, and Gross in both colleges. We profited by their instruction. I have never gone to see a patient in my life whose case I did not study as thoroughly when I came home as a lawyer would study his case. (Applause.) It was the case study with me, and I have studied my cases from that day to this, and I expect to study them as long as I live. (Loud applause.)

The following letter and telegrams were read and appropriate responses ordered:

Stanford, Ky., May 14, 1900.

Dr. E. W. Weis, Secretary Illinois State Medical Society, Ottawa, Ill.

Dear Doctor—At the 45th annual meeting of the Kentucky State Medical Society, held in Georgetown, May 9, 10 and 11, the Secretary was directed to write you this friendly letter, extending the kindest and best wishes of the "Kentucky State Medical" to the Illinois State Medical Society, whose semi-centennial will be held in Springfield, May 15, 16 and 17. We trust for you a happy and prosperous session, and that you may organize your forces so that the motto, which may be inscribed upon your banner, as upon ours, shall be of the highest ethical value: "The profession for the individual practitioner, and the individual practitioner for the profession."

Yours fraternally,

Steele Bailey,

Sec. Ky. State Med. Society.

Des Moines, Ia., May 16, 1900.

Illinois State Medical Society,

Care Dr. Weis, Secretary,

Springfield, Ill.

Iowa State Medical Society sends Semi-centennial Jubilee greetings to Illinois State Medical Society.

James W. Cokenower, Sec'y.

Mexico, Mo., May 15, 1900.

Secretary Illinois State Medical Society, Springfield.

The Medical Association of Missouri, convening at Mexico, sends Jubilee greetings.

B. C. Hyde, Secretary.

The Toastmaster: The next toast is "The Parson to the Doctor, or rather, After the Doctor."

He christens the baby, when life is begun;
He buries the aged, when life is done;
He follows us ever, our faults to condone,
And lends them a sanctity largely his own.

The Rev. D. F. Howe, pastor of the First M. E. Church will explain why he does it.

Rev. Mr. Howe was received with great applause. He spoke as follows:

Mr. Toastmaster, Ladies and Gentlemen—The Toastmaster has just said that the parson follows the physician; that he christens the children and buries the dead. This is true. I have been following the doctors for nearly twenty years, and I am willing to continue following them in this world, and hope that they may all live such lives that I shall be willing to follow them when they leave this world for another. A noted physician has said that there are three physicians whom, if we would employ, we would need no others. They are Dr. Diet, Dr. Quiet and Dr. Merryman. The richness of this banquet indicates that Dr. Diet is not here tonight; and I fear Dr. Quiet is absent also. We may therefore be pardoned for jesting a little in order that Dr. Merryman may be here. Tomorrow we shall all doubtless desire the services of Drs. Diet and Quiet.

I have had much experience with doctors. The first man I met when I landed on this planet was a doctor, and I have been more or less familiar with him ever since. (Laughter.) I have taken most of his staple remedies, from the heroic dosing of forty years ago to the candy-like tablets of the present. The book I preach from abounds with reference to his calling. Its most sublime truths come in the guise of the healing art. Dr. Luke has given us one of the best lives of Our Savior, and also the earliest history of the Church. Besides, your calling and mine are both divine in origin. The priest was physician as well as priest in the early days. Besides, mythology plucks your art

from the clouds in the person of Aesculapius. And then that "R" that stands at the beginning of every prescription is a direct reference to Jupiter. The literal meaning of that "R" is, "In the name of Jupiter, take the following doses as directed." So the old doctor who said in the discussion yesterday, speaking of a difficult case he had prescribed for, "By George, I cured him," ought to have been true to the prescription and said, "By Jupiter, I cured him." I have no words of criticism tonight, gentlemen. I have too high an estimate of your profession. My observation is that there is not on earth a better or more useful class of men. I would speak briefly of a few places where the parson and the physician meet, and where they may be mutually helpful.

We meet at the sickbed, and if the parson goes in a cheery spirit, inspiring the patient with confidence in the physician, then that parson is one of your best friends. And you will make a mistake if you debar him from your patient. Sugar of milk pellets with the slightest flavor of medicine have a great potency sometimes, because they act on the mind, if nowhere else. So does the visit of a sensible, sunny-spirited pastor in whom the patient has confidence.

We meet in ministration to the needy, the poverty-stricken sick, and here I have witnessed more than once the magnanimity of the physician. Many and many a case have I known treated with great care without a cent of remuneration. Ian MacLaren's picture in the "Bonnie Briar Bush," of the great-hearted Doctor McLure can be duplicated over and over in the persons of those who tread not the heather, but the sod of Illinois. (Applause.)

Then, again, the parson is a fellow-worker with the physician when, in his preaching, he is contending for the grandeur and dignity of what we term natural law. God works in and through it for the healing of the race. The remedies he has put in the mineral and vegetable world are just as divine in character and action on the human system as was the actual touch of the Christ in the olden time. There is no healing but

divine healing, that is, healing in harmony with divine law and by the divinely created remedies of the natural world. We need to see this in these days of cruel and blasphemous, so-called divine healing, whether called Christian Science, Dowieism or aught else. The only healing these people perform is done through the divine principle of the action of the mind on the body. Every sensible physician uses that more or less. (Applause.)

Again, the parson and the physician are alike in that both seek to abate evils by the destruction of the cause. The parson after the root—sin; and the physician after the microscopic germs of disease. One of the brightest and most revolutionary chapters in the story of human progress is that which describes the development of the science of bacteriology. No matter what the human mind has achieved in other fields, it seems to me that this stands unsurpassed. Through this science the nineteenth century has seen the masked batteries of man's most terrible diseases uncovered. The wide-sweeping plague of bygone days is now almost impossible. And you have just begun. Did you ever think, gentlemen, how rapidly you are destroying your own business? The more of these diseases you strangle in their cradle, the less practice you are going to have subsequently. Yet still the search for the microbe goes on. Armed with the microscope the hunter is abroad. Surely, gentlemen, in self-preservation you will have to put up placards, reading, "No hunting for bacteria allowed on this tract!" You will have to enact a game law for the protection of the bacterium, giving him an open and a closed season. (Laughter.)

Three countries stand for three great ideas. Palestine for religion; Rome for law, and Greece for art. Those three countries are at this banquet tonight. As the parson I represent Palestine, the idea of religion. My learned friend, Judge Kane, there, represents Rome, the idea of law. While you represent the land of Greece, the idea of art. What art? Not that of the architect and the sculptor; the art that clothed the Acropolis with the mar-

velous creations of a Phidias; not the art that led from snowy and seamless marble to human form, divine. No, grander than all of these, the art of Aesculapius; the art of external medicine that can bind up the broken structure of the living form, and the art of internal medicine that can correct its disordered functions. This is the ancient and noble art to which you are called; the art that means the happiness of all beneath our flag in times of peace, and the art that stanches the flow of patriotic blood beneath that flag in times of war. (Loud and prolonged applause.)

The Toastmaster: It affords me great pleasure to introduce as the next speaker, Judge C. P. Kane, who will respond to the toast, "Law and Medicine."

The mighty Cæsar, pleading at the bar,
Was greater than when thundering in war.
He conquered nations—'tis of more renown,
To save a client, than to storm a town.

Judge Kane arose amid the plaudits of the audience. He said:

Mr. Toastmaster, Ladies and Gentlemen—Lawyers like plenty of time in which to make their arguments, and having observed the manner in which the other speakers have been treated by the ringing of the bell, I am afraid that I shall get a little of the same kind of treatment. (Laughter.) I do not know as much about the medical profession as my friend, Dr. Howe. I am a cat in a strange garret in this company. I remember the agitation with which I have met doctors single-handed when I was lying hopelessly upon my couch, racked with pain, and they came in armed with I knew not what—a lancet, or the thirteenth trituration or dilution of some drug. Then, I was entirely in the attitude of a victim, expecting the doctor at any moment to commit an onslaught with a deadly weapon upon me. How strange, and with what agitation do you think I am able to meet such a sea of faces as is before me tonight, knowing that all of you are masters of the same deadly weapons and the drugs with which I have so often been treated! I do not like to meet men of that kind because I do not meet them on equal

terms. If I meet a company of lawyers I know what to say to them. Every voice brings me confidence. But in talking to you doctors I am somewhat in the position of that old gentleman who would not believe that there was such a thing as the telephone. They explained to him what it was, saying that by means of it a person could stand in a store in the city of Springfield or any other place and converse with people a hundred miles away. The old gentleman said they could not convince him that anything like that had ever been made. They insisted and assured him that it was a fact. "Well," he says, "my wife, Mary, has gone up the road about thirty miles and if you can get this instrument to speak to me so that I can recognize her voice, I will believe it." They called his wife up at the other end of the line, assured him that she was at the instrument, and told him to converse with her. He took hold of the receiver, and while they were making preparations for him to speak to his wife a thunder storm came up from the West, and just as the old gentleman was ready to use the instrument a bolt from the clouds struck the telephone wire with which he was in communication, shocked the house with a terrible roar, and knocked him down on to the floor on his back. Shaking his head, he said: "I would not have believed it, but that was Mary's voice, and I'll have to give it up." (Laughter.) I know something about the ways of lawyers and their methods of handling topics, but I know very little about the medical profession.

Some philosopher has said that first impressions are the most lasting. My first impressions of the medical profession were derived from a story which I heard of them. An old doctor, a very brilliant wit, a capable old fellow, had been practicing in a certain town for some time when a half-witted young gentleman came to study medicine with him. After he had mastered certain courses of study his preceptor concluded to take him out with him to see his patients so that he could get actual experience. They entered a room in which there was a sick man lying on the bed.

The old doctor stepped up to the patient, looked at his tongue and felt of his pulse, and said, "My dear sir, you have been eating oysters!" The patient admitted that he had been eating them, and after prescribing for him the doctor and student left. The young man was very much mystified and said to the doctor, "How, in the name of common sense, could you tell that that man had been eating oysters by simply examining his tongue and feeling his pulse?" The doctor replied, "It was very plain; I saw a pan of oyster shells under the bed." (Laughter.)

One day the young fellow was sent by the doctor to make his first visit and to report in regard to the condition of the patient. He went. He saw the patient, looked at him carefully, prescribed for him, and left the house. On his return to the office, the doctor asked him about the condition of the patient he had seen, and the young fellow replied, "No wonder the man was sick; he had been eating a horse." "What evidence have you for believing such a thing?" queried the doctor. "Because I saw the bridle and saddle under the bed," retorted the student. (Renewed laughter.) So I have gotten my impressions of the medical fraternity from something like that, or from the ten virgins that we read about in the Bible, "five of them were wise, and five foolish."

Gentlemen, I feel very much gratified at being invited to address a body of such men as I see before me. I know you are not lawyers; you are too slick looking. (Laughter.) They call lawyers slick fellows; I never saw a company so slick as yourselves.

You are representatives, I am told, of the medical profession of the State of Illinois. That is a great title, a great honor. Illinois is the great empire state of the West, the heart of the Republic, an epitome of all that is highest and best in modern civilization, and anything that represents the State of Illinois must be of the very highest and best character. I was gratified to hear Dr. Davis say as he did tonight, that the men and women of your

profession, or those of any other profession for that matter, could receive just as complete and thorough an education within the limits of your own State as they could in foreign countries. (Applause.) It is your business to restore the weak to strength, to snatch those back to life who are attacked with disease or hang over the brink of the grave. You are the messengers of hope to the whole world. There is an old proverb connected with your profession, namely, that "while there is life, there is hope." We of the laity have read something of the great and grand achievements of the profession of medicine and surgery within the later years of your history. While, as someone has said, "this is not, perhaps, the vestibule of the great temple in which we are to enter," yet on the dial of time we find figures marked which shall divide the hours of the day. And so in all history we find the story of time separated by the experience of a hundred years, and we can almost designate each one of those divisions of time by some marked and peculiar characteristic of your future. We are about to arrive at the close of the 19th century, laden with its experiences and with its blessings for the human race—blessings of science, of discoveries, of inventions and achievements. The clock of the centuries is about once more to strike. With hopeful faces, with wondering eyes looking back upon what has been achieved, we gaze forward into the vista of the new hundred years to dawn upon us, and our hearts are filled with wonder as we dream of the possibilities not only in your profession, but in all of the learned professions, in all departments of human achievement and of human triumph. I thank you. (Loud applause.)

Dr. Frank P. Norbury, of Jacksonville, responded to the toast, "The Ideal Physician of the Future."

Evidently Wisdom is not to die with us;
The reasons why will now be given us.

Dr. Norbury spoke as follows:

Mr. Toastmaster, Ladies and Gentlemen—No one disputes that a knowledge

of the past actions of men in different situations and circumstances of life is the foundation of a knowledge of the springs of human action, on which we rely in our present, and count in our future, dealings with men.

The history of our State Medical Society, as revealed here tonight, gives evidence of the determining motives, the springs of human action of the sagacious and honored organizers when, fifty years ago, they laid the foundation for higher thinking and action which has been far-reaching in its results. The experience of the half century of this organization bespeaks a continuance of the good efforts for the future because of the certitude that the thoughts and acts of the men who compose it will not be chance events, but events actuated by the same high motives, with the same forethought and consideration as those who builded better than they knew. It is said, that there are two distinct methods of making worldly success. One is by means of bold speculative strokes; the other by patient accumulation. Both are dependent upon good judgment which is generated only in those who think and feel. Tonight, as we in retrospect have seen the unfolding of success in this organization, it is to be noted that this success has been wisely judged, firmly founded, and deliberately built. It is a stable success, and the great idea in its organization has for its foundation character which is genuine, and the ideal for which we all strive. A great idea is never lost, and the ideal is but the pursuance of an idea, striving to make real what exists as an idea. Medicine is no exception, and as it has unfolded from the dark past, it has pursued the one great idea of scientific truth. It is this which has actuated the student of medicine in all ages; it does today, and it will in the future. The ideal physician of the future will be but the evolutionary product of the man of today. We who have arrived lately upon the scene cannot say with the French poet that we have arrived too late in a world too old. No, for as Maurice Thompson says, "What the prevailing aspiration

dictates is the trend of civilization." The periphery of medical attainments has not yet been reached, and what will be the resultant of all the evolutionary forces of investigation of today can hardly be surmised for the future. The world influence, the aspiration of today is toward good; the world is growing better; human life is more sacred, and human love more divine. We are but agents of a destiny that we call progress, which has for its object that great and high aim, the perpetuity of the race. It is the prevailing aspiration of our profession, and, as such, it punctures the shams of all times, strengthens the real in its triumphs, and conscientiously works for the glory of the divine Creator of man.

The ideal physician of the future will strive on; being a student of truth and possessing an hereditary trend he will battle again, growing stronger with each seeming defeat, remembering that "War is the giant's exercise; peace is his recuperation nap on the hillside in the sun." The consummation of perfect professional relationship; the attainment of the ideal in practice; the securing of a permanent professional success is not possible even for the ideal physician of the future. He can but strive as we are striving, but with this in his favor, that he will have the accumulated experience of this recent era in medicine to make him better prepared to discharge the duties of his position. The ideal physician then, in brief, must be a man of character, of good repute, of education and of refinement. He must be, as was that charming character Lydgate in *Middlemarch* by George Eliot, possessed of that fearless expectation of success, a confidence in his own powers and integrity, unaffected good-will and contempt for petty obstacles or seductions, and have familiarity with the philosophy of medical evidence, and a desire to work well in his chosen profession. (Loud applause.)

After a few brief remarks by Dr. W. O. Ensign, of Rutland, the audience quietly dispersed.

GONORRHOEAL CONJUNCTIVITIS.*

BY ALLEN T. HAIGHT, M. D., CHICAGO.
Professor of Ophthalmology, Chicago Clinical School.

The special germ causing gonorrhoeal disease was described in 1879 by Neisser of Breslau, who named it gonococcus. It filled the entire pus cell, the nucleus only excepted, and the germ found only in this disease. Bumm inoculated the sound urethra of an incurable paralytic with the twentieth generation of the culture of this bacterium and produced a typical gonorrhoea. It is generally believed that the gonococcus is always present in the pus cells of a gonorrhoeal discharge and operates as the one causative factor. The discovery of gonococci as the cause of gonorrhoea was at once followed by its acceptance as the cause of gonorrhoeal conjunctivitis and its presence in the secretion has been demonstrated whenever it has been sought. Andrews made microscopical examinations of the discharges from 72 cases of gonorrhoeal conjunctivitis and found the gonococci present in every case. The plea for recourse to the microscope was made by A. B. Kibbe who cites a case in which the symptoms were obscure and the history of the injury and irritation would have been entirely misleading. Another in which a man with gonorrhoea was relieved of the fear excited by simple conjunctivitis and a third in which a suit for malpractice was prevented by the patient knowing that he would be confronted by a microscopic preparation revealing the real character of his disease.

Gonorrhoeal conjunctivitis is a specific purulent inflammation of the conjunctiva characterized by great swelling of the lids and conjunctiva and by the copious secretion of contagious pus and chemosis of the conjunctiva, presenting a marked tendency to destruction of the cornea. In all cases of purulent conjunctivitis the diagnosis should depend upon the bacteriological findings as well as upon the clinical appear-

*Read by title before the Illinois State Medical Society Springfield, May, 1900.

ance. It is sometimes impossible to distinguish gonorrhoeal conjunctivitis from other purulent conjunctivitis except by the presence of the specific gonococci and even then it is not absolutely settled as it may be from gonorrhoea arising from other sources of contagion. We may in some cases be unable to trace the contagion, the patient not being affected with gonorrhoea at the time or never having had it, yet the conjunctivitis is due to this cause.

Dr. A. E. Davis, who collected statistics of infectious diseases of the eye, gives an average of 0.12 per cent gonorrhoeal conjunctivitis. The great danger in this affection lies chiefly in the destruction of corneal tissue by ulceration and sloughing and the resultant partial or complete loss of vision from opacity of the cornea. Gonorrhoeal conjunctivitis arises through infection from gonorrhoeal discharge alone, the virus being conveyed directly from the gonorrhoeal penis or vagina to the eyes or from a gonorrhoeal diseased eye of another person, through the hands or from a handkerchief or a towel or soap or any instrument, etc., used on a diseased eye.

By the majority of authors gonorrhoeal ophthalmia is described as a distinct variety of inflammation but diagnostic symptoms are by no means strongly marked, and with the exception of its cause and the extreme vehemence of its attack it does not appear to differ very materially from severe grades of purulent catarrhal conjunctivitis. Its existence may be suspected from its sporadic course, the violence of its attack invading at once the whole surface of the conjunctiva; the extraordinary rapidity of its progress, the general limitation of its attack to one eye first, the tumefaction of the lids and the excessive chemosis of the bulbar conjunctiva with great tendency to protrude between the lids and cover the entire cornea and the profuse purulent secretion with which it is accompanied. But the history of the case revealing the actual presence of gonorrhoea or inoculation from that discharge in others and the presence of bacilli gonococci in the discharge will furnish the only absolute diag-

nosis. It seldom attacks both eyes simultaneously and the one which becomes infected last in order of time is probably infected by the morbid secretion from the other. The disease is indeed singularly violent and destructive and frequently terminates, notwithstanding the most judicious treatment, in ulceration and sloughing of the cornea, opacity from interstitial deposits, staphyloma, prolapse of the eyes, occlusion of the pupil or suppuration and entire collapse and destruction of the eyeball. The disease is so rapid in its progress that the vision is often irretrievably lost before application is made for surgical assistance, consequently the great necessity for demonstrating the presence of the gonococci in order that the case may not be mistaken for some other form of ophthalmia. We have a form of purulent ophthalmia which sometimes accompanies severe cases of gonorrhoea usually in the male, in which both eyes are affected simultaneously, the discharge is quite profuse but is not of the creamy character of the true gonorrhoeal ophthalmia and in the microscopic examination shows the absence of gonococci.

In my experience I have seen this form of the disease only in cases of severe gonorrhoea accompanied by gonorrhoeal rheumatism of the knees. In this form the danger of destruction of the cornea is practically nil, as there is very little chemosis of the conjunctiva and slight tendency to keratitis.

Gonorrhoeal conjunctivitis is one of the most dangerous and virulent diseases of the eye. Shortly after the infection the patient experiences a feeling of tingling and smarting in the eye as if a little sand had become lodged beneath the lid. The eye becomes red, watery and irritable and the edges of the eye-lids become slightly glued together by a slight grayish white discharge. These symptoms rapidly increase in severity and the disease quickly assumes the character of a purulent ophthalmia of an aggravated form. The eye-lids become swollen, hot, red and oedematous; the conjunctiva very vascular, swollen and villous; the chemosis is also very con-

siderable, enveloping and overlapping the cornea and protruding between the lids. The patient is unable to open the eye and the upper lid overlaps the lower. The discharge is thick and creamy, and so profuse that it oozes out between the lids and when the eyes are opened streams over the cheek. The swelling of the conjunctiva and subconjunctival tissue and all the textures of the lids proceeds with great rapidity. The chemosis is phlegmonous and acts directly upon the cornea by shutting off the blood vessels that supply it, this greatly reducing its vitality, so that the superficial epithelium of the cornea is readily broken down, allowing the entrance of the morbid secretion, which acts directly upon the corneal tissue causing ulceration and sloughing, involving a part of the whole of the cornea and penetrating more or less deeply. As soon as the cornea is involved the inflammatory process rapidly increases. The temperature rises and the pain becomes intense; the subsequent vision if the eye is saved is greatly reduced from the normal.

Wielander states that if gonococci come in contact with flies' legs they can be found on them three hours later in an active state. On this hypothesis only can he explain an epidemic of 33 cases of purulent conjunctivitis which he witnessed in a Maternity some years ago. Chartres of Bordeaux, France, asserts that serious ophthalmia are those produced by streptococci, by an association of streptococci and gonococci or by the combination of these two with others. He concludes by insisting on the necessity of bacteriological investigation. The disease is more frequent in the male, the cause being that the risk of infection in men is greater. This becomes obvious when we consider how much more severe the urethral symptoms are in males than in females. The fingers become carriers of contagion from the constant toilet the penis demands.

Spicer reports 80 per cent of cases occurring in males. The fact that most people are right-handed explains why the right eye is affected first in the majority of cases. Klein found the cornea complicated in 30

out of forty eyes, 16 of which were totally blind; the remaining had some vision. Allen of Columbus reports 30 cases, all of which had corneal complication out of which nine eyes were completely lost. Burckhardt states that one-third of all the blind in Germany and Austria lost their vision from gonorrhoeal ophthalmia. In this country the fraction is about one-fifth. Francisco of New York made a study of 40 cases of ophthalmia neonatorum in 30 of which the gonococcus was present and in several of the remaining the Week's bacillus of acute catarrhal conjunctivitis could be found. The cases in which the discharge appeared before the 4th day were all gonorrhoeal in character, the gonococci being found as soon as sufficient pus for microscopical examination was obtainable. The average duration of these cases was 53 days, and of 40 eyes involved, 6 1-3 per cent terminated in staphyloma; 5 per cent in badly impaired vision, and 10 per cent in slightly impaired vision.

There is great danger of using towels in public places as a means of conveying purulent conjunctivitis. Every physician attending a case should warn those living with the patient of the very infectious nature of the discharge from the eyes and where it is possible the patient and nurse in charge should be isolated. Better care can be given in a hospital than in a private house. Great care should be exercised in washing the eyes in these cases as the pus frequently spurts out like a jet when the lids are separated. In the first stage ice-compressors should be applied constantly night and day and changed every few minutes. In robust subjects or where there is severe initial pain and swelling, marked relief may often be obtained by leeching the temples or in either slitting the conjunctiva or canthotomy or both. In all cases the maintenance of cleanliness by frequent removal of all discharges is the most important part of the treatment. The existence of the conjunctival discharge is due to the effort of the tissues to rid themselves of invading micro-organisms and their toxins. As the

toxines serve the organisms that produce them by helping to overcome the resistance of the tissues the discharge remaining in the conjunctival sacs becomes a source of reinfection.

All cases demand, first cleanliness; 2d, checking of the discharge, and destruction of the gonococci; 3d, relief of pressure at the selero-corneal margin, and the chief indication in the treatment consists in the frequent and careful washing out of the eyes at least every half hour. For this I use bichloride of mercury 1-5000 or saturated solution of boric acid. The thorough cleansing of the conjunctival cul-de-sacs with pyrozon every four hours. The patient should be put to bed and if but one eye be affected, the other should be carefully protected. Patient and nurse should be very careful about the cleanliness of their hands, use of towels, handkerchiefs and so forth.

Gifford advocates the following in the case of gonorrhoeal conjunctivitis. Seen for the first time where one eye is seemingly uninfected, first, to kill any germs that may possibly have entered the apparently well eye, but have not had time to develop; second to prevent any subsequent infection from the affected eye. The first indication is met by cleansing the skin and the lids of the infected eye thoroughly and then applying a two per cent solution of silver rubbing it well into the roots of the lashes, paying particular attention to the skin around the inner canthus. Two drops of the same strength of solution of silver to be instilled into the upper and lower cul-de-sacs, after which the eye is closed. The second indication is fulfilled by hermetically closing the good eye with a pad of absorbent cotton reaching the bridge of the nose and forehead, the whole outer surface being covered with three layers of collodion and the edges carefully brought into apposition with the surfaces of the skin. He also advises inserting a watch glass between two layers of cheesecloth, these being pasted to the skin at the edge except at the temporal side, at which point it is well to leave an opening to prevent

moisture from gathering at the under surface of the glass.

Wall, Kansas, says that having recognized a case of gonorrhoeal ophthalmia the first important thing to be done is to prevent inflammation from attacking the well eye. This may be done in one or two ways. After covering the eye with cotton which may be fastened with rubber adhesive plaster, but a great objection to this method is that it places the patient in a state of total darkness by entirely closing the well eye. And again it is not a very comfortable dressing from the fact that the eye becomes heated under it and after a while becomes irritated and disagreeable. Another method known as Buller's shield is probably better. This consists of a watch glass fastened between two strips of rubber adhesive plaster in such a manner that the eye may be sealed almost hermetically and still leave it free to perform its function of vision. In putting it on it is important that the adhesive plaster be thoroughly pressed down over the nose, the brow and cheek, as the pus from the fellow eye may readily ooze under it unless it is carefully adjusted at these points. At the outer and lower corners a space should be left in which the plaster is not fastened to the cheek for the purpose of ventilation.

T. Howe pictures the results that would follow upon an enactment in New York State of a law requiring the use of silver nitrate solution for the prevention of purulent conjunctivitis in infants. He believes that would immediately tend to lessen the number of children thus affected. And the indirect effect would be good in sustaining the practitioners who use this method in spite of objectors. The indirect effect would also be good in condemning obstetricians who neglect its use, and by such an omission run great risks of adding to the number of blind children. Nearly everyone of whom whether paupers or not become burdens upon society in general and upon the state in particular. The fact there is 33 per cent more blindness in the country than in cities is the strongest argument that Howe offers for pressing the

adoption of the above law and its special enforcement in rural districts.

Belt of Washington, D. C., reports a case of symmetrical corneal ulcers following gonorrhoeal ophthalmia, in a woman 22 years old. Four weeks after the beginning of the attack when the discharge had been arrested and the ulcer which had formed in the left eye, a thick clear ulcerated surface in each eye suddenly appeared which extended seemingly across each cornea.

Liebrecht reports a case of conjunctivitis of both eyes which he believes was caused by constitutional gonorrhoeal infection. The conjunctivitis did not present the characteristics of gonorrhoeal infection and the secretion was thin and stringy, containing no gonococci. In one eye the pupil was occluded by a fibrinous exudate and subsequently there was a superficial infiltration of the cornea. During the subsidence of the conjunctival disease rheumatism appeared. The second attack of rheumatism came on accompanied by renewed inflammation of the conjunctiva. From symptoms in the course of the disease the author believes that the ocular inflammation resulted from a constitutional infection from the primary local disease, either through the gonococcus or a chemical product derived from it.

Norton reports a case of gonorrhoeal conjunctivitis, in which the disease occurred in an orbit containing a shrunken eye-ball for which an artificial eye was being worn. An attack of delirium tremens which the author thinks was probably excited by reflex irritation from the gonorrhoeal disease developed on the second day.

Dr. Chisholm relates a case of a good pious old gentleman who consulted him about his eye. On being informed that he had gonorrhoeal ophthalmia he became very indignant. Later the old gentleman informed him that he had traced his disease to a towel used by a son having urethral inflammation.

Wurde mann reports a case of gonorrhoeal ophthalmia through infection by means of an artificial eye. The patient a male,

27 years of age, had had a severe attack of gonorrhoea about five years prior to the last attack. The left eye had been enucleated after an accident to the globe, and since this time had been wearing an artificial eye. Three weeks before he had a urethral discharge which developed into a severe gonorrhoea. His hands were not kept clean, and in this manner by means of the artificial eye he inoculated the socket of the sightless side. Five days later, having received no medical attention in the meantime, more of the discharge from the sightless side run over into the right eye and was followed by gonorrhoeal inflammation. The conjunctiva was greatly chemosed. The lower half of the cornea in the remaining eye was one large ulcer. A perforation took place near the upper margin. The patient was sent to the hospital. Ice water apparatus put on. Leeches placed on the temple. Canthotomy was done. A local application of sublimate and atropine made. Vaseline was kept between the lids and silver solution used later. Gonorrhoea did not subside until 10 weeks later. Vision was nil as the cicatrix of the cornea occupied nearly the lower half of the cornea and the upper portion was likewise. The vision permanently suffers in nearly all cases of gonorrhoeal ophthalmia in the adult from total defect to total loss.

Knapp cites two cases, both atypical and obscure. In one the eye was lost but it might have been saved he thinks had a bacteriological examination been made at the first visit. In the other the bacteriological examination relieved the patient from unjust suspicion awakened by the appearance of the eyes and the subsequent course of the case to recovery confirmed the microscopical findings.

Trousseau treats gonorrhoeal conjunctivitis with a three per cent solution of nitrate of silver; applied twice a day, combined with frequent washings and cold compresses of 1-2000 bichloride solution.

Hirst, of Philadelphia, condemns the use of too strong solution of nitrate of silver on the ground that they may lead to fatal conjunctival hemorrhage.

T. M. Wilson recommends vaseline

gonorrhoeal conjunctivitis. He regards it not as a curative but as a protective application.

In the second stage of the disease when the conjunctiva has become velvety, I consider a three per cent solution of nitrate of silver the best possible treatment. It should be applied by the surgeon and the conjunctiva of the affected lids should be brushed with the solution after which they should be thoroughly washed and cleansed with a saturated solution of common salt. Too great care can not be taken in the use of silver in the eye where a gonorrhoeal ophthalmia is present, as it is not uncommon to observe cases where a cornea has escaped the cicatrix resulting from ulceration but is deeply stained with the silver, with the resultant vision greatly reduced.

Gaultier protects a cornea from the action of strong solution of silver nitrate in the treatment of gonorrhoeal ophthalmia by fitting over it a nickel cap held in place by an assistant. The caps are of different sizes the object being to have them overlap the sclero-corneal junction at the time of application.

In the third stage when the signs of chronic conjunctivitis appear I substitute crystals of zinc and copper for the silver. But only use these when the cornea is free from all signs of acute inflammation and ulceration. During the entire course of the disease the cornea should be carefully watched and atropine should be instilled upon the first appearance of haziness or ulceration. This drug covers the double purpose of combating any exciting iritis as well as preventing if possible prolapse of the iris should perforation take place.

I agree with Dr. Chisholm who said before the 9th International Congress, "There is no disease of the eye so thoroughly mastered that further information is not desired."

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LEUKAEMIA AND SPLENIC PSEUDO-LEUKAEMIA.*

EVERETT J. BROWN, M. D., DECATUR.

The object of this paper is to present two cases of the more common form of leukaemia, known as the spleno-myelogenous variety (one of which has just come to autopsy), and a third case of the much rarer and very interesting form of disease known as splenic pseudoleukaemia, or splenic anaemia. It is to the latter case that I wish to call especial attention, for, although now regarded as a rare disease, yet I anticipate that with the revival of interest which has been created recently in its study by the two papers of Osler¹, and the critical summary of the literature by Sippy², and his report of a recent case, many more cases will be brought to light, and its clinical recognition be made easier; in fact, such has already been the effect, and in the issue of the Boston Medical and Surgical Reporter for April 26th there appeared three articles on the subject, with

*Read at the Fiftieth Annual Meeting of the Illinois State Medical Society, Springfield, May 16, 1900.

the report of four additional cases of the disease.

The leukaemias may be divided into two great classes; the true and the false. Of the true leukaemias there are three subdivisions; the lymphatic, the splenic and the myelogenous; clinically, however, we cannot make this sharp division, for the most commonly observed type is a combination known as the spleno-myelogenous variety; of the pure myelogenous form there are only two cases on record, hence its existence may be doubted. The pure lymphatic form, although comparatively rare, is quite often observed, while the pure splenic variety, without lymphatic or medullary involvement, is also quite rare. An acute form of true leukaemia is now quite frequently seen although its proper place in the study of these blood conditions has been hardly yet established.

Of the false leukaemias. Hodgkins and Bonfils (quoted by H. C. Wood³) named two varieties: lymphatic pseudoleukaemia, or Hodgkin's disease, and the lympho-splenic pseudoleukaemia. Wood (1871) recognized the third variety; the splenic pseudoleukaemia. The relationship existing between pseudoleukaemia and leukaemia is still in doubt, and it is possible that in time they will be found to be only phases of the same disease; they have the same clinical history, the same lesions of solid organs, the same general course, and differ only in the existence or absence of a marked leucocytosis, with some qualitative differences in these leucocytes; this similarity together with the occurrence of leucocytosis during the course of a pseudoleukaemia, make one wonder if the diseases are not identical. There is one fact however, that points very strongly against this supposition, and that is the effect of the operation for the removal of the spleen, which in leukaemia is almost universally fatal, while in splenic pseudoleukaemia quite a number of successful results are recorded. Leukaemia may be defined as a disease affecting the blood producing functions of the body, characterized by a marked quantitative and qualitative change

in the leucocytes and by peculiar changes either in the spleen, bone marrow or lymph glands, or in all of these structures, running occasionally an acute, but usually a chronic course, and exhibiting a progressive anaemia, a marked tendency to hemorrhages and a fatal termination. The pseudoleukaemias answer in a general way to the same definition, with this difference, that there is no marked leucocytosis and no peculiar forms of leucocytes. Splenic pseudoleukaemia therefore, may be defined as a primary splenic hypertrophy with a progressive anaemia, without involvement of the lymph glands and without marked increase in the white blood cells.

For purposes of comparison I will first report the two cases of true leukaemia: Case 1. Spleno-myelogenous leukaemia, pregnancy, with abortion at six months, followed by double phlegmasia alba dolens. Mrs. G. aged thirty-one years; a farmer's wife; sent to me on March 14, 1900, with a diagnosis of ovarian tumor; family history negative, no malarial history; has had seven children, four living and in good health. Six months ago she noticed a "lump" in the left side just under border of ribs; it was distinct from the abdominal enlargement due to the pregnant uterus. On January 4th, she had miscarried at six months, and in one week developed fever, and a week later, phlegmasia in both legs, which continues to the present time. At the time of miscarriage the tumor was the size of a teacup, but since then it has increased steadily in size. No enlargement of lymph glands. She has had recurring epistaxis, bowel hemorrhage and metrorrhagia. She is somewhat emaciated, pale, with well marked melanoderma resembling Addison's disease. Temperature 100.5° F. pulse 100. Physical examination shows a large tumor in left side of abdomen. The dullness begins at 9th rib in axillary line and merges into the tympanitic sound at point half way between last rib and crest of ilium; the tumor mass extends to umbilicus and downward to a point midway between umbilicus and symphysis; above the umbilicus the dullness is continuous with

that of the left lobe of the liver; a distinct notch is felt half way between the ensiform and umbilicus. Spleen moves vertically, not diagonally with respiration; it is tender on pressure and the heart sounds are transmitted through it; no bruit; heart apex in fourth space on nipple line; lung liver border at sixth rib; sternum and tibiae tender on percussion. Blood examination: haemoglobin 75 per cent; red cells, 3,600,000; white, 250,000; differential count; myelocytes 38.5%; polymorphonuclears 53.3%; lymphocytes 7%; eosinophiles 1.2%; numerous nucleated reds, some with double nuclei.

Eye examination made by Dr. S. E. McClelland shows normal vision, but a pale retina, with both fields of vision contracted.

Urinalysis: color—yellow; albumen, sugar, bile, indican and diazo negative; chlorides 19%; phosphates 5%; urea 2%; sediment; amorphous phosphates.

May 1st. At present writing she has entirely recovered from the phlegmasia, is up and around and able to work, is taking arsenic, and appears much less anaemic; spleen remains the same size giving her the appearance of a seven months' pregnancy; she has occasional slight fever, good appetite, epistaxis at times and metrorrhagia when on feet much. Her weight is 136 pounds; in health it was 165 pounds. A recent blood examination shows: Haemoglobin 70%; White cells 128,000; In 2,000 reds there are 12 nucleated reds, all normablasts.

Case 2. Spleno-myelogenous leukaemia, uncontrollable priapism lasting twenty-six days; nearly fatal epistaxis; death from exhaustion; autopsy. John C. aged forty years, farmer; seen first on Sept. 2, 1899. Father died of gastric cancer; one sister of phthisis. Patient not well for two years; noticed spleen enlargement ten months ago. Has been in bed for three weeks on account of the very painful priapism, which is not affected by treatment, but requires the use of the catheter and prevents sleep; a painful urethritis has now developed. Spleen occupies the larger part of the left half of the abdomen; no oedema or ascites; patient

is very anaemic; temperature and pulse normal; no involvement of lymph glands; no melanoderma. Urine shows a specific gravity of 1015; albumen and sugar negative; sediment of pus cells and bacteria.

Blood examination: Haemoglobin 75%; red corpuscles, 2,940,000; leucocytes 456,000. - Differential count; polymorphonuclear neutrophiles 56%; myelocytes 41%; lymphocytes 2%; eosinophiles 1%.

Eight months later he died; had been up and around most of the time since the attack of priapism which lasted twenty-six days; he had had several slight attacks of this complication before, but each time it lasted only six or eight hours; at all times there was no sexual erethism. Three days before death he became totally deaf; his vision had been greatly affected for months. Duration of life after discovery of enlarged spleen one and one-half years; total period of ill health, two and one-half years.

Autopsy: Eighteen hours post-mortem; with the assistance of Dr. W. T. Patterson and Dr. Will Chenoweth. Emaciation not extreme; purpuric spots on arms at site of hypodermic needle punctures; abdomen quite flat, in marked contrast to the great enlargement before death; pleurae and lungs negative; pericardium contains two ounces of clear yellow fluid; heart not enlarged; filled with semi-fluid chocolate red blood; valves competent but showing on mitral and aortic leaflets patches of atheroma. Upper third of the greatly enlarged spleen firmly adherent to the diaphragm and to left lobe of liver; it is smooth and uniformly enlarged and its right border presents three distinct notches; it is fifteen inches long, eight inches wide and three and one-half inches thick; longer circumference thirty-one inches; shorter, nineteen inches; weight ten pounds.

Liver: weight seven pounds; right lobe eight and one-half by ten by three and one-half inches; left lobe, nine by three and one-half, by two inches. Left kidney floating; smaller than right. Stomach, intestines, mesenteric glands and bladder normal.

Histology: Spleen—increase of cellu-

lar elements. Malphigian bodies indistinct. Leucocytes abundant in lymph spaces and free in stroma.

Liver shows slight cirrhosis; capsule thickened, with small hemorrhages beneath; lobules show chronic congestion. Infiltration of leucocytes between liver cells.

Kidney: Some increase of connective tissue and atrophy of glomeruli. Hemorrhage into straight tubules. Increase of leucocytes is seen in capillaries and between the tubules.

The third report is the case of splenic pseudoleukaemia previously mentioned.

Case 3. Greatly enlarged spleen; profound anaemia; advancing to cachexia; no leucocytosis; great ascites and oedema; death from exhaustion; autopsy. C. T. male, American, aged fifty-four, farmer; married. First examined by me in May 1898. His father is living at 80 years; mother died of heart disease. One brother died at fifty-five of some abdominal cancer; another brother is living, but has Bright's disease, and one sister living fifty-five, but with anaemia and some stomach disease. He belongs to the better class of farmers, being well to do, and from a very intellectual family; his habits have been good; no alcohol, but an excessive user of tobacco; fond of condiments and a good eater; no venereal history. He had a very severe and prolonged attack of malaria fifteen years ago.

Present illness: For three years he has not seemed well; was irritable and easily tired and at times had backache when standing; has been pale and yellow for over a year; six months ago he coughed or spit blood (six or seven large mouthfuls), and two or three times later he has done the same, but at no time was there severe hemorrhage; has dyspnoea on exertion and some heart palpitation. Oedema of ankles appeared first about four months ago, gradually extending up the legs and into abdomen; more or less cough exists and there is constipation. Examination: A very large man, but having lost considerable in weight; the anaemic appearance is

marked. Is up and around most of the time and oversees his farm work; mind is clear and active and in spite of his forced levity one observes in him an intense anxiety as to his disease. Skin is dry and rough and subcutaneous tissues flabby; temperature normal. Pulse 70 to 90. A tumor mass (not large) is felt under the left costal border; ascites and oedema considerable. I made a diagnosis of Cirrhosis of the liver, from the ascites, moderately enlarged spleen, vomiting of blood, etc. On July 5th he was examined by a Chicago specialist who concurred in a tentative diagnosis of cirrhosis, but mentioned the possibility of malignancy or of pernicious anaemia; the blood count which was as follows, excluded leukaemia. Haemaglobin (Fleischl) 35%; red corpuscles 1,450,000; white corpuscles 6,300; no nucleated reds. Microcytes and macrocytes rather abundant.

October 24th; spleen is enlarging and is felt as a large firm mass with smooth surface protruding out from under the left costal arch and extending to a point beyond the umbilicus and downward to a point within a hands' breadth of the pubic bone; it moves with respiration in a diagonal direction, its edge is easily felt and the whole tumor can be quite readily grasped with the hands and moved in a lateral direction. Urine 1020. No albumen. I lost sight of the case for six months while I was in Europe and on my return in June, 1899, all his symptoms were increased; larger spleen, more anaemia, more dropsy. Four days before his death his abdomen was tapped and a large quantity of slightly pink fluid removed. Death from exhaustion. Duration of disease, two years five months.

Autopsy: Eighteen hours post-mortem. The subject, a very large man, showed a high grade of emaciation; the subcutaneous fat was greatly reduced, the subcutaneous tissues were oedematous, the feet and legs were swollen and the abdomen greatly distended by the ascites and the greatly enlarged spleen. There was no decided enlargement of the lymph glands either ex-

ternally or in the abdomen. The ascitic fluid was estimated at one and one-half gallons and when held to the light in a test tube showed a slight pinkish tinge. The organs were only examined in situ, and sections removed from them for microscopical examination. The spleen was greatly but uniformly enlarged, filling the greater part of the left half of the abdominal cavity; the surface was smooth and showed no peritoneal adhesions; the small notch at right border was well marked; the liver was somewhat enlarged and presented a smooth surface and no visible signs of cirrhosis; pancreas, kidneys, stomach and intestines negative. Histology: Pancreas, small cell infiltration and post-mortem necrosis. Liver: no cirrhosis, but localized collections of lymphoid cells in the capillaries and a moderate atrophy. Spleen; marked hyperplasia of the finer stroma, with collections of lymphoid cells throughout, similar to those in the liver. Throughout the stroma there are also numerous giant cells with nuclei arranged centrally. The above report was kindly made for me by Dr. A. S. Warthin in Dr. Dock's laboratory at Ann Arbor.

The Index Catalogue gives few references under the caption "Splenic Anaemia," hence the literature must be sought under several other heads, such as, splenic hypertrophy, anaemia, Hodgkin's disease, etc., but as far as I have been able to find there are recorded, before the case which I report today, only 51 cases of this disease. The number of autopsies is even smaller, there being only eighteen recorded. Sippy was able to select from the literature seven cases in which the spleen had been removed for this disease; of these five recovered; since then Osler has reported one additional case which recovered; these excellent results lead one to hope that the operation may be established as a regular procedure in all primary enlargements of the spleen, the main contraindication seeming to be only a great leucocytosis or a far advanced cachexia.

In looking up the literature of this sub-

ject it is surprising to see how much the older writers knew on the subject and how much has since been forgotten about it; for years no text books mentioned the subject and several of the recent ones have nothing upon it. This may be due to the fact as Shuttuck⁵ recently said, that we are classifying away ahead of our knowledge, and that our ignorance of the so-called splenic anaemia is yet great, and that it is not even a clinical entity. Musser⁹ in his latest edition on Medical Diagnosis does not mention splenic pseudoleukaemia, but speaks of a secondary or so-called splenic anaemia which in no case exists as a primary anaemia, but which is distinguished from leucocythaemia by the lesser frequency of hemorrhage, by the absence of leucocytosis and by the special characteristics of the leucocytes. As regards hemorrhage, most other observers differ from this opinion and speak of the various hemorrhages as being a special characteristic of splenic anaemia. Osler gives a short article on splenic anaemia in his text book and says it is a disease characterized by great enlargement of the organ, profound anaemia without leucocytosis and without the coexistence of malaria, rickets, or other state in which enlargement of the spleen is secondary. Yet in his above mentioned report which appeared in January this year he includes four cases of undoubted malarial history.

Stengel⁸ in his article in the Twentieth Century practice mentions splenic anaemia under the list of synonyms for Hodgkin's disease; he dismisses the subject in a few lines by saying: "splenic hypertrophy may be unassociated with changes in the lymphatic glands or other structures. Such cases constitute the splenic anaemia of Griesinger and Strumpell or the splenomegalie primitive of Debove and Brühl. More commonly the splenic enlargement is followed by some involvement of the lymphatic glands and the latter may become the more conspicuous feature of the disease." In another place he says that cases spoken of as splenic anaemia are widely different in nature, some belonging

to the symptomatic anaemias, others being cases of Hodgkin's disease.

Sahli⁶ in his recent *Klinische Untersuchungs Methoden*, recognizes the two pseudoleukaemias, viz.: pseudoleukämia lienalis, and pseudoleukämia lymphatica.

Eichhorst⁷ mentions the three forms of pseudoleukaemia; the lymphatic, the splenic and the myelogenous, the first being the more common, the two latter quite rare. He also refers to the case reported by H. C. Wood in 1871.

That some obscure relationship exists between leukaemia and splenic pseudoleukaemia there can hardly be a doubt, but the fact that surgical intervention in the case of pure leukaemia is always fatal, while in the false form it is often successful, makes one believe in their distinct entity.

Sippy gives Banti the credit for first describing the affection in such a manner as to attract the attention of the medical profession. Banti's paper⁴ appeared in 1882, and although of great value, yet it was antedated by our own countryman, H. C. Wood, who described a case in the *American Journal of Medical Sciences* in 1871. Banti gave the following definition of the disease: "Anaemia splenica is a disease characterized by a progressive oligæmia, arising without appreciable cause, and giving rise to grave disturbances of all the organic functions, causing oedemas, hemorrhages, irregular fever and followed constantly by death, and accompanied by a notable tumefaction of the spleen and the liver, which tumefaction is independent of any preceding morbid condition and is not associated with any leukaemic alterations of the blood."

A short history of H. C. Wood's case, being the first one described in America, might be of interest. Case: M. male; aged 30 years. Seen in August 1870. Had served during the last six months of the war in the malarial district of Virginia; no distinct malaria, but cough, diarrhoea and dysentery. On returning home he resumed his occupation of confectioner; did much lifting; bowels loose now for three

years; also pain and dragging in left side; for two months gradual loss of strength and flesh. Is now pale; no fever; tongue clean; abdomen enlarged but free from fluid. Spleen shows dulness vertically five and one-half inches, and transversely six and one-half inches; surface smooth, hard, edges rounded, tender on pressure. Liver enlarged; vertical dulness five and one-half inches; edge one inch below ribs; urine normal; slight oedema of legs; blood: no increase of leucocytes. The spleen gradually enlarged, the leucocytes diminished and he finally died of exhaustion. Post-mortem: spleen 8x5 $\frac{3}{4}$ x4 inches; color bright red; masses of yellowish color through spleen; lymphatics enlarged in thorax and abdomen. Spleen pulp contained usual elements.

In making a diagnosis of true leukaemia the blood examination tells everything, while in the pseudoleukaemias it furnishes only negative evidence, for as yet we have found no distinctive quantitative or qualitative change in either the white or red cells; in leukaemia, however, as is well known the leucocyte count usually passes the 100,000 mark, and lymphocytes or myelocytes are more or less abundant according to which form of the disease exists. Osler has already called attention to the remarkable attacks of haematemesis is cases of enlarged spleen, whether primary or secondary; in his fifteen cases of splenic pseudoleukaemia, eight had had haematemesis; in seven of these this was the symptom for which they sought relief, and in two it was the cause of death. Sippy's case had repeated epistaxis; the cases operated upon by Pean showed haemoptysis, haematemesis, haematuria and bloody stools; in fact in reading the histories of most cases of the leukaemias one is struck with the frequency with which we find some form of hemorrhage; my case of splenic leukaemia had hemorrhage from the stomach, and the case of splenic leukaemia which I have reported above in a woman gives a history of epistaxis, metrorrhagia and bloody stools.

I am indebted to my assistant Dr. C.

Martin Wood for valuable aid in studying these cases and in searching the literature of splenic anaemia.

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THE TREATMENT OF SENILE ENLARGEMENT OF THE PROSTATE, WITH ESPECIAL REFERENCE TO THE GALVANOCAUSTIC RADICAL TREATMENT.*

BY F. KREISSL, M. D., CHICAGO.

The management of dysuria and ischuria prostatica is divided into a palliative and a radical one. We are in a position to successfully relieve the symptoms of dysuria prostatica of the first degree for a while by a proper diet, massage, application of sounds of large caliber, and remedies likely to produce a physiologic-pathologic hypertrophy of the detrusor muscle, like strychnine and the faradic current.

If, however, the patient does not succumb to an accidental disease, the prostatism will invariably progress into the second stage, with all its obnoxious features of catheter life, pains, hemorrhages, urethral fever, and the almost inevitable infection of the urinary passages, unless he submits to an operation which has in view the restoration of free unimpaired urination.

The surgical procedures for this purpose are divided in three groups:

1. The methods of cystodrainage—suprapubic, perineal or rectal.
2. The methods of indirectly aiming to

reduce the size of the prostate, the so-called sexual operations, like vasectomy, angion-curectomy, and castration.

3. The methods directly striking the obstruction at the vesical neck, like prostatotomy, prostatectomy, electro-cauterization and the galvano-caustic incision, or as it is better known, "Bottini's galvano-caustic radical treatment of senile enlargement of the prostate."

The operations of the first group are not performed with the view of affording the patient a radical cure; the cystodrainage leaves the obstruction undisturbed, and, according to the intentions of the surgeon, accomplishes a temporary or permanent free outlet for the urine through an artificial route. Among the latter, I would prefer the suprapubic drainage, which does not produce urethral fever like the perineal drainage, nor is it accompanied by the danger of infection, and formation of stones, like rectal drainage. By means of a soft rubber drainage tube, with double air-cushions, as I have devised one, it is very easy to keep the patient dry and comfortable without the pain and leakage peculiar to all metal and hard rubber drainage tubes.

Cases of primary acute and complete retention, produced by considerable congestion of the prostate, when it is impossible to pass a catheter and the condition of the patient urgently calls for relief, are suited for temporary drainage. By relieving the intravesical pressure, decongestion very soon follows, and free urination, respectively unimpeded catheterization may be resumed in a few days.

The permanent drainage will be indicated in those cases in which the patient refuses to submit to a radical operation, or in which the latter seems inadvisable for technical or other remote reasons. Here I give Poncet's suprapubic cystostomy preference, because of its simplicity, comparative small danger and rapidity of performing it. It precludes urine infiltration, does not require any provision for drainage, so injurious to the trigone and kidney, and allows the patient to sit up in five to eight

*Read at the Fiftieth Annual Meeting of the Illinois State Medical Society, Springfield, May 16, 1900.

days after having been operated on; points, all of which are of the utmost importance for the quality of patients we usually have to deal with.

For the purpose of indirectly reducing the size of the prostate, Bier proposed and performed eleven times the ligature of the *iliaca interna* in 1893. His results have been so unsatisfactory and the serious operation so dangerous that he himself refrained from recommending it at the surgical Congress in Berlin in 1897. The sexual operations do not imply this danger, but the psychical disturbances following upon them and the mutilation alone are facts worthy of a serious consideration. Add to this the many evident failures, and you will not be surprised to find that the enthusiasm which originally hailed this method introduced by Ramm in Christiana, and a year later by White in Philadelphia, has given way to a decided soberness. Mikulicz, for instance, reports that out of twenty-four prosthetics subjected to sexual operations he failed to cure even one. Among these are eighteen resections of the ductus, two castrations, four ligations of the *vas deferens*; four died, in eleven cases no result, in nine a very moderate improvement. In seven castrations which I have performed, in 1896 and 1897, I saw no result in five; in one case of ten years' standing with complete retention, and very difficult catheterization, the latter became and still is rendered very easy, but the residual urine still amounts to two-thirds of the total amount. In the seventh case almost complete retention existed before the operation, while two months afterwards hardly any residual urine was found, but a year later all the symptoms recurred. Socin reports eight castrations, of which seven have been complete failures; only one was followed by a slight improvement. Czerny calls the prospects of the sexual operations disconsolate, and in about the same way express themselves Watson, Bryson, Alexander and Fenwick.

There are statistics just contrary to the above reports, but the many failures, poor results, not justifying the repulsive fea-

tures of castration, will easily explain the tendency to substitute it by vasectomy, recommended by Isnardi, and by Albarran's angioneurectomy.

The reports on the final results as far as the reconstruction of an unobstructed urinary passage is concerned are still more unfavorable than those after castration, without even eliminating the in the latter so frequently observed post-operative psychical disturbances, and cachexia, to be compared with the cachexia *strumipriva* after *thyroidea* extirpation.

Why the sexual operations occasionally afford a decided, yet but temporary relief, might perhaps find its explanation in the following conclusions:

The reduction of the size of the prostate is not the result of a reduction of the solid cellular elements, but of a decreased quantity of blood and lymph fluid, which practically means decongestion of the pars posterior *urethrae* and the vesical neck.

This can not be regarded a therapeutic factor in senile hypertrophy of the prostate, which process, as a rule, involves parenchyma and interstitial tissue alike, and in spite of repeated decongestion incessantly progresses.

These reflections make it plausible to expect much more from the operative methods directly attacking the obstruction at the vesical neck. The incision of the prostate will be successful in those few cases in which a thin barrier is formed by the mucous membrane and muscle fibers, while nothing can be expected of it in solid hypertrophy and myomatous lumpy projections.

Prostatectomy *perinealis*, *sacralis* or *suprapubica* gives occasionally fair results, but it is only expedient in pediculated lumps, and, like *prostatotomy*, represents a serious interference on account of the profuse hemorrhages, the urine infection and the injurious reflectory action upon the kidney, provoked by lesions inflicted to the trigone and vesical neck.

It is therefore not surprising to notice the radical change in the attitude of the genito-urinary surgeons towards Bottini's

galvano-caustic treatment of senile hypertrophy of the prostate within the last two years.

The original method, Bottini's, was the cauterization of the prostate by means of a flat electro-cautery fastened on the convexity of the shaft below the beak, burning a shallow or deeper cleft, according to the amount of heat, and the duration of applying it to the tissue. It may be advantageously employed in small solitary projections and in the early stages of senile hypertrophy. Crespi, an assistant of Bottini's, published in 1898 a case of incontinence of eleven years standing, following upon a perineal cystotomy, cured by this method. Bottini reports a similar result in a case of prostatitis chronica associated with hypogastric and perineal pain, and prostaticorrhea—apparently of gonorrheal origin—which for eight years had stubbornly resisted all other attempts.

Freudenberg thinks the cauterizer may be successfully applied to ulcers and fissures at the vesical neck, and in the prostatic urethra. I am of the opinion that in propounding these possibilities he goes a little too far. Such conditions can with greater exactness and without causing unnecessary lesions to the healthy tissue be removed by the urethroscope and the operation cystoscopy.

Yet I believe the flat cautery represents an efficient and very mild interference in the early stages of senile enlargement of the prostate, where none, or scarcely any residual urine exists, and with the exception of frequent and perhaps painful micturition we hardly find any palpable changes. It is to be regretted that just in this stage, the disease does not come under our observation more frequently, but in such advanced stages as to exclusively require the second and best-known method Bottini's, the galvano-caustic incision of the hypertrophied gland. This method is a modification of the old Mercier bloody division of the gland, and purposes the cure of prostate hypertrophy and its consequences by producing a condition in which the patient spontaneously and in

normal or approximately normal intervals empties his bladder. Presuming that the members of this Society are familiar with the history and technique of the operation, as it was described in various journals, and in my paper submitted to you a year ago, I do not consider it necessary to take up your valuable time with repetitions, but will survey the principal features only. The predominating symptoms of prostate hypertrophy are produced by a mechanical obstruction at the vesical neck, and the galvano-caustic incision is performed for the purpose of removing the same. This is accomplished because the cautery heat in the blade exercises its effect not only on the adjacent tissues, but also at a distance of about one-half of an inch in all directions. As a result, all the necrotic tissue sloughs out, leaving a deep and wide cleft up to the bas fond, where previous a projecting lump interfered with the free flow of urine. No hemorrhage may be anticipated. The coagulating white heat prevents this, and produces a thick coat of charred tissue, which in turn safe-guards against an infection. To the patient the operation does not amount to much more than the passing of a steel sound, and can be rendered almost painless by local anesthesia, for which I employ antipyrin solution, both intravesical and rectal. Thus the risk connected with general anesthesia when administered in old individuals is obviated. If complete retention has existed before the operation, I am in the habit of leaving a soft rubber catheter, No. 8 English, in the bladder for a few days, otherwise I prefer to leave the urethra alone. The patient remains in bed for two days only; free urination starts very shortly after the operation, the amount of residual urine decreasing daily, while the quantity of spontaneously voided urine increases and the intervals between micturition become longer. A complete cure, which means continence for four to six hours, and the possibility of voiding all the urine spontaneously, is, as a rule, accomplished in about six weeks. Mild cystitis, principally caused by the obstruction, does not require special attention; it

disappears gradually, with the bladder resuming its normal functions. Advanced cystitis in a badly infected bladder must be treated separately, and it takes a long time to bring it under control, although it is easier to be managed after two of the chief factors, the retention and stagnation of urine, has been eliminated by the operation.

From the description, and even when witnessing the operation, one might believe it to be the easiest thing to be done, yet in reality it is a very delicate procedure, likely to become dangerous and even fatal if performed by inexperienced hands, and against certain indications; if nothing worse occurs, it will be a failure. In order to make it a success the following conditions must coincide:

1. The surgeon must possess practical experience in manipulating instruments in the urethra and bladder; he has, so to speak, to be at home there.

2. He must be thoroughly familiar with the mechanism of the incisor and the battery, the technique of the operation and the effects of the latter.

3. The diagnosis of an existing hypertrophy has to be established with certainty before the operation.

4. We should endeavor to obtain positive knowledge of the configuration, number and location of the projecting lumps, and to ascertain or exclude complications like diverticles, ulcerations, tumors, and stones in the viscus. In the majority of the cases this can be accomplished by bimanual palpation, cystoscopy and exploring with the steel sound. Wherever the latter two procedures are impracticable, Bottini's operation, as a rule, is contraindicated, at least for the moment.

Some opposing the operation argue that it requires special skill, and therefore cannot be done by everybody. I consider this rather an argument for than against it. Nobody ever thinks of abandoning iridectomy, cataract operation or the extirpation of a larynx for similar reasons, and I would venture to say that castration was done so

often and frequently—perhaps unjustifiably, because it represents a minor surgical interference, not requiring special skill, surgical experience, or a complicated apparatus, and special preparations. So reported for instance, Cabot, in 1896 on 20; castrations in senile hypertrophy, and White on 111, while Bottini, Bruce, Clark, Czerny, W. Meyer, Lenander, Morton, Kummel, Frisch, Freudenberg, and the author of this paper, together from 1867 up to 1899, had only 180 cases of galvano-caustic incision.

Another contingent of opponents is formed from those who, disregarding the rules laid down before, occasionally attempted a Bottini operation and failed.

One can not play Liszt's compositions on the piano without having acquired the necessary technic, and one cannot successfully perform galvanic incision without a previous training and much experience in bladder work. From a recent publication of B. Lewis I see that he considers the amperemeter unnecessary when the street current is used. I cannot endorse this statement; on the contrary, I consider it an indispensable help. Sometimes bending of the cautery knife and subsequent contract with the conducting staff is unavoidable; the next consequence is short circuit, whereupon the knife cools off. In such an event, instead of burning the incised tissues, we will crush them, causing profuse hemorrhage, and enhancing the danger of infection, if the amperemeter is not present, and indicate the undesirable incident.

Post-operative urethral fever, frequently observed by others, I had in my own 25 cases, but twice occasion to see, and both cases were complicated by strictures in the membranous urethra. The explanation of this disagreeable yet usually not serious phenomenon is very simple: We observe urethral fever after any urethral and endovesical interference—like urethroscopy, cystoscopy, passing of sounds, and even of soft rubber catheters, when along the urethra or close to it lesions of the tissues,

an inflammatory or infectious process, or a resilient stricture exist.

In the majority of prostatics subjected to Bottini's operation there is always one or the other, or all, of these morbid conditions present, likely to favor urethral fever simply by the passage of the heavy metal instrument. Our experience is alike in cases of lesions of the kidney and renal pelvis, yet these reflectory symptoms usually pass off within a very few hours, and assume serious proportions only when occurring in very old, emaciated individuals, with a debilitated heart action and considerably impaired function of the kidneys.

Post-operative hemorrhages may be divided into two groups: One, immediately following the operation, may be caused by the too hasty pulling of the cautery blade through the tissue, by incising the anterior part of the prostate by cutting too far down into the normal prostatic urethra, by insufficient amount of heat in the blade, or by short circuit, causes for which the operator and not the method ought to be blamed, as they can be avoided with the necessary care and experience. From Freudenberg's recent publication I see that he has adopted my opinion already expressed two years ago, to operate with white heat and not with red heat, in order to prevent hemorrhages.

When following this rule there is practically no hemorrhage at all, and incidentally I had occasion to prove this to an audience in October, 1899. It was a case of prostate hypertrophy complicated by a fibrous stricture, of the caliber 8, Chariere, one inch long, in the membranous urethra. Electrolysis and subsequent dilatation brought the caliber of the stricture up to 24 Chariere, whereupon I decided to excise it and to perform the galvanic incision at the same time. After having done so, a cleft, dry and charred all over its surface and deep enough to admit an ordinary lead pencil, could be felt by the finger introduced through the perineal wound.

Another quality of hemorrhages are those which we very often see appearing in the second and third week after the

operation. They are graulation hemorrhages, without consequence, and, as a rule, do not require special attention; rest in bed for a day, eventually ergotin, being sufficient to stop them. In one case of a somewhat profuse hemorrhage I employed successfully a vesical injection of five ounces of a 1-1000 nitrate of silver solution; in another case the application of a soft rubber catheter a demeure for twenty-four hours gave immediate satisfaction.

Among the auxiliary diagnostic means in senile hypertrophy I mentioned the cystoscopy. Many physicians erroneously consider the introduction of a cystoscope in prostatics impracticable. My experience is different; it is feasible in the majority of the cases, only those complicated by lumps considerably projecting in the prostatic urethra being exempt. Yet I have also made such urethras passable for a cystoscope, and the Bottini incisor, by leaving an elastic catheter in the bladder for several days, producing softening of the obstructions and dilatation of the canal.

Another and insurmountable obstacle to cystoscopy is furnished by projections elongating the canal to more than ten inches, sometimes filling out the greater part of the viscus; but these are not suitable for galvano-caustic incision either, and I doubt if a satisfactory result can be attained even with the latest Freudenberg's innovation of an apparatus, which allows the incision to be carried downwards eight centimeters instead of four, and also deeper into the projecting lumps by a higher blade.

I consider cystoscopy of great diagnostic value in cases in which the vesical portion of the hypertrophied gland is of medium height and collar-shaped. In these cases, when turning the cystoscope around its own axis in the same plane, the upper margin of the collar is uninterruptedly visible, with the exception of the symphyseal portion where a depression sets in. This finding speaks for the presence of the so-called collar and determines the number of incisions, which here have to be multiple.

Since I have first called attention to the

appearance of epididymitis in the third week after the operation, I notice that others have observed it also. It complicates cases in which the bladder was infected before the operation, and coincides with the time when the burned tissue is thrown off, allowing septic material to become absorbed by the granulating surface. Further observations will have to decide if this disagreeable incident cannot be prevented by internal antiseptics, as the post-operative daily application of local disinfectants through a catheter is not advisable.

There is no reason to give up if the result of one operation was not satisfactory. Failure due to degeneration of the bladder muscle is extremely rare; Freudenberg's cases and my own published a year ago, in which a second operation brought a complete and permanent recovery, demonstrate that the failure after the first operation was caused by the insufficient number of incisions, or by the incision not having been long enough to divide the sphincter internus, a feature of great importance for the permanent deepening and widening of the artificial cleft.

Presuming that we get a more profitable and lasting lesson from mistakes and failures than from the dry statistics of successful operations, closing with the monotonous remark: Patient passed an uneventful recovery, I selected a few cases to report to you which I consider instructive and interesting enough to draw valuable conclusions.

Case 1. Referred to me by a colleague from out of town, who stated in his letter that he had made two incisions in the hypertrophic prostate, one in the median and one in the left lateral lobe, practically with no result. The patient complained of frequent and painful urination, the urine being turbid, containing a moderate amount of shreds. Passing a catheter into the bladder right after spontaneous urination, I found no residual urine; in the membranous urethra an elastic stricture of the caliber 24 Charriere. Prostate slightly enlarged; in the antero-posterior diameter painful to touch. Prostate fluid showed evidence of prostatitis. Urethra seven

inches long. Cystoscopic examination also corroborated that the man never had a hypertrophy, that the blade of the incisor did not strike the gland, but demonstrated a scar to the left of the trigone, apparently caused by a slight contact of the heated blade with the bladder wall. Burning a hole through the wall with fatal consequences would have been the result had the bladder not been filled with fluid before the operation, and another case telling of the failure and danger of Bottini's treatment had been added to the records.

Case 2. Patient, 60 years old, seen by me in July, 1899. Complaints of frequent and occasionally painful micturition in one hour intervals, day and night. Length of urethra seven and a quarter inches. Stricture 25 Charriere in membranous part. Prostate considerably enlarged in transverse and antero-posterior diameter. The profuse prostate fluid contains much pus epithelium and staphylococcus. Urine, acid, contains much pus and coli bacillus. By catheter two cubic centimeters of residual urine drawn. Result of cystoscopic examination: Bladder slightly trabeculated, trigonecystitis, a minute nodule projecting from the left lateral lobe. Urotropine, massage, and instillations improved his condition so much that after three weeks' treatment the urine became almost transparent, and free and painless urination occurred in normal intervals. In November I saw patient again in a dying condition, suffering from acute sepsis, resulting from a Bottini operation which had been performed on him a week previous to my seeing him. I was told that the conventional four incisions had been made, followed by a profuse almost uncontrollable hemorrhage of eighty ounces of blood. Soon chills and fever set in and the patient died. By the kindness of the colleague I had occasion to witness the autopsy, which corroborated my findings in July, and also my presumption that the hemorrhage and subsequent septic phlebothrombosis was due to the incision of the plexus venosus paraprostaticus. The incised surfaces showed very little evidence of cauteriza-

tion, presumably because the blade was not sufficiently heated, or perhaps short circuit occurred. This case shows that not every prostatomegaly is a hypertrophy; that cystoscopic examination would have easily cleared the situation, and that the incisions according to a set pattern are not only useless, but dangerous, if carried down the anterior symphyseal portion of the gland, a fact which I have pointed out in several previous publications. This was a case where if one desired to cauterize, Bottini's cauterizer should have been employed instead of the incisor, and then only applied to the left lateral lobe.

The following two cases do not strictly belong to the subject of this paper, but they illustrate the paramount importance of a careful diagnosis in cases suspected to be prostate hypertrophy:

Case 1. Patient, 54 years old, experienced symptoms of frequent urination two years ago, and pain in the glans penis when the bladder became empty. This pain was more pronounced in the upright than in the recumbent posture. Hematuria but occasionally noticed. He was repeatedly examined with sounds, but no stone discovered. Recently he was told to have prostate hypertrophy, and castration advised. When I saw him first he had chills, fever, a dry tongue, much tenesmus, and bloody urine of ammoniacal reaction. Passed 90 cubic centimeters urine free. Residual urine, 300 cubic centimeters. Length of urethra seven inches and a half, which, taken together with the negative results of rectal palpation and the absence of a lateral deviation of the sound when passed into the bladder, excluded prostate hypertrophy. By cystoscopic examination I found a normal vesical neck, and in the trigone two phosphatic concretions, each of the approximate size of a lima bean, which I removed by litholapaxy, after having demonstrated them in the patient through the cystoscope in the Chicago Medical Society. A coarctation in the membranous urethra of the caliber 20 Charriere, which I temporarily brought up to 30 by electrolysis, in order to facilitate

the introduction of the evacuation catheter, was removed six weeks afterwards by perineal section. The residual urine by that time had decreased to about 30 cubic centimeters, and was apparently caused by the stricture and the inflammation in the bladder wall, and castration would not have been followed by a cure, but perhaps by a damage suit. It demonstrates that Albert in his textbook on surgery is quite right when he warns not to be too hasty in removing an organ which has not only to preserve the race, but also the peace in the family.

More tragic is the second case, which I saw in January of this year. The man, 52 years old, was castrated a year and a half ago for an ailment supposed to be prostate hypertrophy. He got worse after the mutilation, frequent and painful urination increased, and gradually gave way to an overflowing bladder. When I saw him he was in a septic condition, the bladder distended over the navel, the urine dripping continuously from the meatus. He had a stricture beginning four inches from the meatus, impossible for a filiform bougie. Not wishing to lose much valuable time, I performed suprapubic cystotomy, relieving the bladder of about eight quarts of decomposed urine. The vesical outlet was unobstructed; no evidence of a prostatic enlargement, but an inch from the neck in the prostatic urethra I found the vesical end of the stricture, which I excised, allowing the wound to heal over a silver tube, which was accomplished in two weeks. The suprapubic opening closed five weeks later. The new-formed canal is now, five months after the operation, passable for bougie No. 25 Charriere. The bladder is emptied at normal intervals. At the time when castration was performed the urethra was, according to the patient's statement, passable for a good-sized metal catheter, and consequently for other exploratory instruments, whose careful employment would have excluded the possibility of a diagnosis of prostate hypertrophy, disclosing the stricture as the cause of all the symptoms and indicating perineal urethrotomy as the proper operation. The patient,

to be sure, would be minus a suprapubic operation, but plus his testicles.

In relieving contrast are the following cases:

Case 1. Patient, 78 years old, complains of considerable tenesmus; the calls to urinate come in thirty minute intervals at night, every hour in the day; the urine voided is clear; averages 35 cubic centimeters; the residual urine 250, sometimes 300 cubic centimeters. The urethra is eight and a half inches long; the prostate in all dimensions enlarged. The median lobe seen through the cystoscope appears projecting and occluding the vesical outlet. Bottini's operation performed March 7, 1899. I made one incision three and a half centimeters long in the median lobe. Two weeks afterwards day and night intervals four hours, residual urine 30 cubic centimeters. Six weeks later the patient and his physician report free urination in intervals of about six hours, without straining, no residual urine. A similar report was sent to me in October, 1899, eight months after the operation.

Case 2. Patient, 74 years old, noticed first symptoms of tenesmus and frequent micturition eight years ago. At present, September, 1899, the calls to urinate come every fifteen minutes to half an hour at night, and every two hours in the daytime. In the membranous urethra a short fibrous stricture, 16 Charriere; length of urethra nine inches; amount of urine, spontaneously voided, 100 cubic centimeters; residual urine, 280 to 320 cubic centimeters; clear, acid. Upon palpation the median lobe found considerably enlarged in all dimensions. Cystoscopic examination demonstrates the bar to be formed by the median lobe, a slightly projecting left lobe, but the thick right lobe, valve-shaped, overlapping both. I made one incision in both the median and left lobes, and two diverging ones in the right lobe. The operation was performed October 15, 1899. Patient left his bed October 18th, and the hospital October 21st. Six weeks after the operation continence for four hours day and night. March, 1900, for six hours in the day and four hours in the night. No re-

sidual urine was found, though patient was examined at various times.

I had occasion to see a patient of mine two weeks ago, who is recorded in my paper submitted to you a year ago, as Case No. 3. He was operated on December, 1898. His urethra still measures eight and a half inches, but the bladder works normally, being emptied in intervals of five to six hours. No residual urine left. The gonorrheal cystitis which I treated after the Bottini operation appears entirely cured. If such a condition prevails seventeen months after the operation, we are entitled to speak of a radical and permanent cure.

Comparing the final results of the galvano-caustic radical treatment with those of all the other methods to relieve the symptoms of prostatic hypertrophy, we find a by far larger percentage of complete cures and improvements by the first one, while the mortality and failures are very insignificant. This is so much more conspicuous because of the fact that we rarely have occasion to operate on patients in the first, and not so frequently in the second, stage; oftentimes the badly infected bladder and advanced pathologic alterations of the kidneys and blood vessels have seriously impaired or even undermined the vitality of the organism, so much so that every other surgical interference is out of consideration.

So, for instance, reports L. Weber, in the New York Medical News, April, 1898, a complete cure with galvanic incision in a case of a man, 93 years old, with complete retention, cystitis and pyelitis. My oldest patient cured by this method is 87 years old.

When the proper understanding of the importance and possibilities of this method to effectively prevent the sequelae of senile hypertrophy will have penetrated into the wide circle of the general practitioners who, as a rule, see these unfortunate sufferers in the earliest stages of the disease, it is well to presume that the patients will sooner come to the operation, and that the results will still surpass their present record.

The galvano-caustic radical treatment

traverses the same experience like many other fundamental discoveries of the passing century; vaccination, antiseptis, asepsis, transfusion, cystoscopy, after having experienced opposition and doubt, are such indispensable means of diagnosis and therapy today that no modern physician or specialist would think it possible to practice without their aid.

From what we know today, we can safely say that the galvano-caustic radical treatment of senile hypertrophy of the prostate is a well-established fact, well-founded and supported by a great many promising and reliable reports of eminent investigators. It is reserved to the near future to collect and conscientiously scrutinize the results of this practical experience, from which a permanent and lasting edifice can and will be constructed.

DISCUSSION.

DR. J. F. PERCY, Galesburg: In the first place, I must confess that I have never used this method. In the second place, I am not going to use it until other fellows get through experimenting with it. In the third place, in case the future proves it to be a legitimate method, it certainly must be limited in its scope. The more I see of surgery, the more I am opposed to working in the dark. I believe it to be bad practice to stick a hot iron down into a man's bladder. Although Dr. Kreissl has, I am sure, presented this subject as ably as it can be presented, I do not believe it is good surgery to introduce this cautery knife into a patient's bladder, turn on a current, and attempt to do something that cannot be done under the eye. I am just as much opposed to it as I was opposed to the obsolete Bigelow method of crushing stone in the bladder and for the same reason. The time it takes to do these operations is much greater than to make an incision into the bladder through the abdominal wall. If you want to remove a portion of the enlarged prostate with knife or scissors, or if you want to use a cautery, it can be done then. On the other hand, I have had three cases in which I made section of the vas deferens, and my patients were benefited. I have not had occasion to do this operation for over a year. It was a case in which the Bottini method could not well be used because the prostate was so much enlarged that it would be impossible to introduce the instrument of Bottini into the bladder unless one used more force than I would care to use. The man had been under the care of many physicians. Several had attempted to catheterize him. He passed large quantities of blood, he had suffered for a long time and his condition when I saw him was bad. The two lateral lobes, and the so-called third lobe, of the prostate were so

large that the bladder could only be emptied by introducing the catheter as far as it would go toward the bladder and with the finger in the rectum pushing the long beak of a metallic catheter up between the lobes. Under the Schleich method of anesthesia I took out an inch of the man's vas deferens, and within thirty-six hours he did not complain of his bladder and in a few days had returned to his work on the street. He was seventy-two years of age; the subject of arterio-sclerosis, and yet he has had no trouble with his bladder since.

If I understood the doctor correctly, I am surprised to hear him say that this operation of section of the vas deferens was being abandoned.

I observed one thing in the case just referred to and to which the doctor calls attention, viz.: that the mental condition of patients after section of the vas deferens is sometimes impaired. Whether in my case this was due to the arterio-sclerosis; or to the section of the vas, I do not know.

DR. E. M. SUTTON, Peoria: The doctor read his paper so rapidly, that it was difficult for us to understand many of the points brought out. It seems to me, the Bottini operation is a rational procedure for this affection, and probably the best that has ever been devised, and with reference to the operation being still in the experimental stage, I must take issue with any one who says that. In 1870, I believe, Bottini first began to operate with cautery for this trouble. Later on the instruments were improved until in the place of a large red-hot iron, such as the last speaker referred to, it has been brought down to a small, delicate platinum knife. That is one good feature of it. It is thoroughly aseptic when it is in use, and it is more likely to prevent sepsis than to cause it. If there is a little infection in the prostate to begin with, the cautery ought to destroy it rather than increase it.

I have had experience with this operation in a patient, seventy-three years of age. He was an old man, who had retention of urine, it being impossible to introduce a catheter. The attending surgeon did a suprapubic cystotomy. The man is otherwise well, with the urine draining from his bladder. I introduced a Bottini instrument, cauterized the prostate, and on the third day following the operation the man was free from pain and able to empty his bladder. He has had no trouble since.

I am rather inclined to think that these cases are benefited by the operation of removal of the testicle, because acute inflammations of prostate gland subside so quickly after this operation. I am not prepared to say what influence the operation may have on the mind. Further than that, I really believe that the White operation makes a better showing for the operator himself than for the benefit of the patient.

DR. H. B. BROWN, Decatur: I have never seen the Bottini operation performed. I have seen a great many cases of enlarged prostate, and how in the name of God and under Heaven section of the vas deferens or castrating a man

for enlarged prostate can make him pass his water within twenty-four hours is something I never could understand. I have seen a number of cases operated on in that way, all of which were failures.

DR. KREISSL (closing the discussion): I am sorry that one of the gentlemen who discussed my paper has left the room. It is very easy to make objectionable remarks about a method in an off-handed way, and then leave the room, especially when a man has had no experience with it. As my time for reading the paper was limited, I could not go into details. I referred to my paper of last year, which was read by title, and published in the Transactions of the Society, in which I mentioned the method of operating and gave a description of the Bottini apparatus, pointing out the possible accidents and incidents connected with the operation. The doctor (Dr. Percy) spoke of pushing a big hot iron into the patient's bladder. This is not done by a competent surgeon. The instrument resembles very much the ordinary sound; the cautery blade is as small as the short beak of a sound; which should never enter the bladder proper. In my previous articles I have fully described how the instrument should be introduced and also the technique of the operation.

With reference to the remarks of Dr. Percy in regard to litholapaxy, I have done this operation many times and have not perforated the walls of the bladder, and my patients have left the hospitals three or four days after the operation. The operation is comparatively safe if one knows how to do it. If he does not know how to do it, he should learn it by practicing on a large clinical material which it is impossible to obtain in private practice. In our college and hospital clinics we have a large amount of material to work upon. Many men go to the dogs, so to speak, because the walls of their bladders have been perforated by improper instrumentation. Experience and skill are acquired only from an abundance of clinical material. If one prefers, he can first make a laparotomy or a suprapubic cystotomy, open the bladder, and then make the Bottini operation. Such operations I have also done. If you have a large concrement in the bladder that you cannot crush on account of the big lumps projecting into this viscus, it is advisable to make a suprapubic operation first, remove the stone, and do the Bottini operation, under the guidance of the eye. The Bottini operation obviates in many cases the necessity of performing a suprapubic operation, and is performed on men much older than sixty-five years.

There is another point which is worthy of consideration. There is danger from hypostatic pneumonia and kidney trouble if these patients are kept in bed too long after operation, while the Bottini operation does not confine them in bed longer than a day or two. We rarely see a hemorrhage during this operation if the tissues are thoroughly and properly cauterized. It also obviates the necessity of giving chloroform or other anesthetics, which if the patient has a weak heart, deranged kidneys, or other constitutional troubles, is fraught with danger. The

danger from this source is obviated because only local anesthesia with a four per cent. solution of antipyrine is needed in Bottini's method.

As I have previously remarked, it is very easy for anyone to get up and attack a method which he has never seen carried out or has never performed himself, and recommend its abandonment and to go back to the old methods of operating. Those who have done a great deal of surgery have gradually accepted the Bottini operation after they knew how to perform it.

THE FENGER BANQUET.

The committee in charge of the Fenger banquet have furnished the following information.

The banquet will occur at the Auditorium Hotel on the night of November 3. The guests will assemble at 7:30, and they will sit down to the banquet at 8:30.

The cost of the plate will be \$5.00, and will cover the purchase price of a handsome loving cup which we will give him.

We anticipate between one and two hundred from outside of Chicago and four hundred from Chicago.

NOTICE TO DELEGATES.

Nearly every Medical Society in the State has appointed a delegate to attend the Fenger banquet. There will consequently be in Chicago at this time a large and representative body of men from all parts of the commonwealth, and I have decided to ask them all to come together for a short time to consider ways and means for advancing the interests of the profession, and more particularly to extend the influence and membership of the State Society. In this connection I wish all to carefully read the letter just issued by C. E. Black, Chairman of Committee on Medical Legislation. Many of the points there mentioned will be discussed at this meeting. If you have anything to suggest which will make the State Society more useful to the profession and more influential in the affairs of the State, this will be the opportunity to present it. All officers of the Society are requested to attend this meeting. The meeting will be held at the Auditorium Hotel at 5 p. m.

G. N. Kreider, Pres.

The Illinois Medical Journal

PUBLISHED MONTHLY.

Official Organ of the Illinois State Medical Society.

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The Society does not assume responsibility for any statements or opinions published in this journal.

Entered at the Postoffice at Springfield, Ill., as second-class matter.

Springfield, Ill., November, 1900.

JUBILEE ISSUE.

The Committee on Publication is pleased to present this issue in a dress that is very attractive and will serve to call attention to the Jubilee Features of the Fiftieth Anniversary Meeting of the Illinois State Medical Society. That this particular feature was so successful is perhaps due to the active and energetic labors of the venerable Dr. John H. Hollister. It was owing to his untiring efforts that we had the felicity of seeing together those grand old men who assisted at the birth of this Society.

Perhaps never again will we have the pleasure of meeting together these pioneers of the profession of this state and those members who were present are to be congratulated that they had the opportunity of seeing and hearing them, and we trust that this issue will serve to preserve the pleasing impressions received at the meeting.

ABOLISH THE CORONERS.

As usually conducted in Illinois, the office of coroner is a travesty on justice and a waste of the public money. Carried on solely for what some petty politician can

make out of it hundreds of dollars in the smaller counties and thousands in the larger counties are squandered on inquests for which there is no need. On the other hand when a criminal case does occur, the officer is usually found utterly incompetent. The Chicago Tribune, October 15th, says: "It frequently happens, as it has in the Defenbach case, that the coroner's deputy and his jury fail to see the significance of evidence that later is run down by the police, with the result that crime is uncovered that was totally unsuspected."

The scandal has become so great that some of the best newspapers in the state have called for the abolition of the office of coroner. In Cook county it has been proposed to delegate this work to the police department. By this action it is believed that a greater part of the \$45,000 expended by the coroner's office in Cook county would be saved.

The proper solution of this problem would be for the state to pass a law, similar to the one in force in Massachusetts which places this work in the hands of competent physicians. So far as we can learn the Massachusetts law has been a great success. Will not some member of the Society take up this matter and after making proper investigation recommend some action to the State Society. We believe that the law might be amended to the benefit of the public and profession. K.

NEW MEMBER OF THE STATE BOARD OF HEALTH.

Dr. George W. Webster was appointed a member of the State Board of Health by Governor Tanner, to fill the unexpired term of Dr. R. F. Bennett. Dr. Webster is so well and favorably known, not only in Chicago where he resides, but also throughout the state, that it is needless to

speak of his qualifications for the position. He is in every respect so well qualified that the Governor has really paid the Board a compliment by naming him. The Doctor was unanimously endorsed by the Chicago medical societies and his name is the first that appears upon the list of eligibles furnished the Governor by the Judicial Council of this Society.

It is exceedingly gratifying that the Governor has seen fit to accept and act upon the recommendation of the State Society and because of it, every member of the Society will feel a personal interest in the official life of Dr. Webster. Knowing the Doctor's attainments, professional and otherwise, as well as his desires for a high professional standard, we feel assured that his influence for good will soon be demonstrated to the satisfaction of every member of the Illinois State Medical Society.

AMPUTATION OF LEG.

During our recent visit in Paris we witnessed Delbet at the Hotel Dieu make an amputation of the leg at the lower third by the Bier method, that will commend itself to the surgeon. We have not seen any mention of this method anywhere, and doubt whether it has been given to the profession in this country. Like many of the procedures exploited in Paris during the Congress, this operation was devised and has been practiced in Germany for several years.

He makes long anterior and short posterior flaps. The first incision is made along the entire line of the anterior flap upon the tibia down to the bone. The periosteum is pushed away from the bone on either side, and with a saw he makes a cut one-half inch deep only. He now completes the posterior incision up to the fibula, dissects the periosteum about a quarter of an

inch back, cuts it through with a saw, and then with a knife severs the tissues in the interosseous space and cuts the periosteum of the tibia immediately above this line almost up to the anterior surface of the tibia. Now with a saw he completely severs the tibia at this point, and then elevating the foot, the saw is carried down the tibia from the completely severed ends to the first cut, leaving a plug of bone about two inches in length by about one-half inch in thickness, which piece is completely covered by its periosteum. Now at the upper end of this fragment there is removed about one-quarter of an inch, so as to allow of its being easily carried downward so that it fits accurately and rather loosely without too much stretching upon its periosteum, upon the severed ends of the tibia and fibula. Before it is attached, however, the constricting Esmarch is removed for the purpose of noting upon the cut surface of the fragment the oozing of blood to indicate that its circulation is not impaired. The fragment is then drawn over the cut surface of the tibia and fibula, fitted accurately, all sharp edges removed, and the periosteum of the lower end of the fragment is sutured to the periosteum of the fibula. The external wound is closed with silver wire. There is here then a solid crossbar, converting the tibia and fibula into one bone, the advantages of which need not be dwelt upon. W.

LIST OF DELEGATES TO FENGER BANQUET.

The following are the names of those who will represent their Societies at the banquet that is to be tendered Dr. Christian Fenger in Chicago, November 3:

Chicago Academy of Medicine—H. N. Moyer, Chicago.

Chicago Medical Society—J. B. Murphy, W. L. Baum and W. A. Evans, Chicago.

Chicago Pathological Society—F. Billings, Chicago.

Chicago Pediatric Society—A. C. Cotton, Chicago.

Chicago Gynecological Society—N. Senn, Chicago.

Chicago Therapeutic Society—G. H. Cleveland, Chicago.

Chicago Society of Internal Medicine—E. F. Wells, Chicago.

Chicago Laryngological Society—J. E. Rhodes, Chicago.

Chicago Surgical Society—A. H. Ferguson, Chicago.

Decatur Medical Society—E. J. Brown, Decatur.

German Medical Society of Chicago—Karl Doepfner, Chicago.

Jacksonville Medical Club—Carl E. Black, Jacksonville.

Kankakee Medical Society—Chas. True, Kankakee.

Medico-Legal Society of Chicago—N. S. Davis, Chicago.

Peoria City Medical Society—O. B. Will, Peoria.

Bureau County Medical Society—C. A. Palmer, Princeton.

Champaign County Medical Society—C. B. Johnson, Champaign.

Clinton County Medical Society—T. Gaffner, Trenton.

Crawford County Medical Society—I. L. Firebaugh, Robinson.

DeWitt County Medical Society—A. E. Campbell, Clinton.

Douglas County Medical Society—W. E. Rice, Tuscola.

Fulton County Medical Society—W. E. Shallenberger, Canton.

Jefferson County Medical Society—J. H. Mitchell, Mt. Vernon.

JoDavies County Medical Society—D. G. Smith, Elizabeth.

LaSalle County Medical Society—E. W. Weis, Ottawa.

McDonough County Medical Society—J. B. Bacon, Macomb.

McLean County Medical Society—E. Mammen, Bloomington.

Morgan County Medical Society—F. P. Norbury, Jacksonville.

Moultrie County Medical Society—E. P. Miller, Sullivan.

Pike County Medical Society—H. T. Duffield, Pittsfield.

Saline County Medical Society—J. W. Ballaner, Harrisburg.

Sangamon County Medical Society—B. B. Griffith, Springfield.

St. Clair County Medical Society—H. C. Fairbrother, E. St. Louis.

Schuyler County Medical Society—A. W. Ball, Rushville.

Shelby County Medical Society—W. J. Eddy, Shelbyville.

Stephenson County Medical Society—C. R. Sheetz, Freeport.

Tri-County Medical Society—L. B. Russell, Hoopeston.

Vermillion County Medical Society—W. A. Cochran, Danville.

Will County Medical Society—H. W. Woodruff, Joliet.

Williamson County Medical Society—A. M. Edwards, Marion.

Winnebago County Medical Society—P. F. Gillett, Rockford.

Aescuplavian Society of Wabash Valley—H. McKennan, Paris.

Association Military Surgeons of Illinois—S. C. Stanton, Chicago.

Brainard District Medical Society—G. N. Kreider, Springfield.

Iowa & Illinois Central District Medical Association—C. Bernhardt, Rock Island.

North Central Illinois Medical Association—E. P. Cook, Mendota.

Southern Illinois Medical Association—W. F. Grinstead, Cairo.

Illinois State Medical Society—C. C. Hunt, Dixon.

FOR THE GOOD OF THE PROFESSION.

It may be appropriate to again call the attention of the profession to the request of the State Society at its last meeting that every local Society should appoint a committee of three to be known as a committee "for the good of the profession." Such committees to have charge of matters of legislation, sanitation, medical political

appointments and to co-operate with the committees of the State Society.

Below is given a list of all Societies who have already appointed such committees, also the names of the committeemen appointed. This is good as far as it goes, but so far hardly half the Societies have responded. These committees will be very necessary when the legislature is in session, and it is desirable to keep in close touch with the whole profession. We would urge upon every local Society the necessity of at once appointing their committee, in order that the committee on legislation of the State Society may have full support.

Adams County—R. J. Christie, Jr., Joseph Robbins, Quincy; Wm. Gilliland, Coatsburg.

Brainard District—S. T. Hurst, Greenview; A. G. Servoss; Havana; H. B. Brown, Lincoln.

Chicago Gynaecological—F. Henrotin, 353 LaSalle ave., E. J. Doering, 2458 Indiana ave., H. T. Byford, 100 State street, Chicago.

South Chicago—E. M. Webster, 9139 Commercial ave., C. F. Swan, 9139 Commercial ave., H. E. Clyde, 9139 Commercial ave., Chicago.

Crawford County—C. Barlow, Robinson; H. N. Rafferty, Robinson; L. J. Weir, West York.

Champaign County—J. E. White, Urbana; W. K. Newcomb, A. S. Wells, Champaign.

Clinton County—M. Broening, Carlsruhe; I. J. Maroney, Breese; W. A. Carter, Trenton.

District Medical Society of Central Illinois—T. J. Whitten, Nokomis; G. J. Rivard, Moweaqua; E. P. Staff, Ramsey; F. J. Eberspacher, Pana.

Gallatin County—I. N. Bourland, Equality; G. W. Coombs, Ridgway; T. Alfred Jones, Inman.

Macoupin County—J. P. Matthews, C. J. C. Fischer, J. C. Collins, Carlinville.

Moultrie County—W. E. Stedman, Sul-

livan; H. D. Smith, Lovington; D. D. Grier, Gays.

Morgan County—E. F. Baker, F. P. Norbury, Jacksonville; J. G. Franken, Chandlerville.

Ogle County—H. A. Mix, G. M. McKinney, Oregon; W. W. Burns, Polo.

Pike County—H. T. Duffield, F. Marion, Crane, Pittsfield; R. H. Main, Barry.

Peoria County—E. M. Eckard, W. R. Allison, C. H. Probst, Peoria.

Sangamon County—B. B. Griffith, C. S. Nelson, C. M. Bowcock, Springfield.

Schuyler County—A. W. Ball, J. N. Speed, E. B. DeGraff, Rushville.

Winnebago County—D. Lichty, W. R. Fringer, W. B. Helm, Rockford.

Military Tract—J. F. Percy, Galesburg; E. M. Sutton, Peoria; R. E. Lewis, Macomb.

County and District Societies.

The work of the Vermillion County Medical Association reopened the evening of the 19th, in the office of Dr. E. E. Clark, for the coming year. There was a good attendance, with a good showing of interest in the work, and a desire to accomplish more than in the past. In compliance with the request of the judicial committee, a list of four names was ordered forwarded to this committee for their possible use in medico-legal appointments by state officials, also at the request of the committee on medical legislation of the State Association a committee "for the good of the profession" was appointed by the President as follows: Drs. E. E. Clark, T. E. Walton and Jos. Fairhall. There being no regular paper for the evening, malpractice suits and conditions occupied the balance of the time. E. E. Clark, Sec'y.

The Adams County Medical Society met at the Chamber of Commerce, Quincy, Ill., in regular session, Oct. 8, 1900, with Vice President Williams in the chair. After transaction of routine business, the Society listened to a very able and interesting paper read by its author, Dr. A. C. Cotton, of Chicago. His subject was, "Some Cardiopathies of the Developing Period." These he divided into three classes, the ante-natal malformations, the ante-natal infections, and those conditions where the two are found in combination. Cases in each class were cited, and photographs of hearts in each class exhib-

ited. The speaker made the point that in some cases where there is the most marked defect, there is no appreciable divergence of the heart sounds from the normal. Dr. Cotton was given a hearty vote of thanks for his presence and for his very scholarly address. There were twenty-two present at this session.

Chas. D. Center, Sec'y.

The Moultrie County Medical Society met at Sullivan, Ill., Oct. 11, 1900, at 8 p. m., President B. F. McMennamy presiding. Usual routine of business was gone through. The attendance was not very large, but the usual interest was taken.

Received the membership of Dr. J. W. Dobson, whom we were glad to enroll.

Dr. J. R. Landers gave us a paper on "Typhoid Fever," which had many features of interest, and dwelt on the point of giving the patient whatever he desired to eat, but never forcing anything on him. This created considerable discussion, nearly everyone following the line of strictly fluid diet.

Dr. Harvard Hamilton gave an interesting paper on "Intestinal Troubles of Children," leaving open the question when opium and morphine should be used, or if at all. Many practical points were given during the discussion.

A very interesting clinic was presented by Dr. Landers of a young man with double congenital malformation of the os calcis.

Our next regular meeting will be held at Bethany, Nov. 8. We invite the presence of members from other Societies.

J. W. Mayes, Secretary.

The Military Tract Medical Association of Illinois met at Kewanee for its sixty-first and annual session Oct. 18 and 19. The following scientific program was discussed:

J. E. Sutton, Canton, President's Address.

G. E. Luster, Galesburg, "Pelvic Abscess."

Hugh T. Patrick, Chicago, "Remarks on Apoplexy, for the General Practitioner."

O. B. Will, Peoria, "The Time to Operate."

J. F. Percy, Galesburg, "Pyloric Stenosis, Removal of the Gall Bladder, Glioma of the Brain, Uterine Prolapse," Report of a case with operation.

J. E. Coleman, Canton, "The Diagnosis of Surgical Diseases of the Kidney."

S. C. Stremmel, Macomb, "The Treatment of Dysmenorrhoea."

J. F. Harter, Stronghurst, "Shall the Country Doctor Practice Surgery?"

R. C. Matheny, Galesburg, "The Tonsils: Their Function and Indications for Treatment."

E. M. Sutton, Peoria, "Athetosis, Excision of the Brachial Plexus."

G. B. Noren, Kewanee, "Post Partum Hemorrhage."

Frank P. Norbury, Jacksonville, "Cortical Localization."

R. A. Kerr, Peoria, "Suppurative Endocarditis, with report of case."

Dr. Dorsey, Keokuk, Ia., "Pregnancy vs. Tumors."

G. Frank Lydston, of Chicago, gave an address on the "Physician in Literature."

The McLean County Medical Society, after a vacation of three months on account of the great fire of June 19, met at the City Hall Thursday evening, Oct. 4, 1900. Nearly all the physicians of Bloomington had all their office fixtures, books, instruments and other valuables destroyed at the great fire just mentioned. I was among the losers, and I wish to say that the fire and its consequences has kept me from reporting anything recent for the Journal. This meeting was largely attended, and the nurses from the Deaconess Hospital were present by invitation. Communications from Drs. Percy and Black were read by the Secretary relative to the appointment of a committee of the Society to act in conjunction with the State Society on the "good of the profession," and in regard to politico-medico-legal appointments. This committee consists of the following members of this Society: F. C. Vandervort, E. Mammen and Lee Smith.

C. M. Noble, of Bloomington, read a paper on "Disinfectants After Contagious Diseases," and Jos. B. Taylor read a paper on "Formaldehyde Gas as a Disinfectant." Dr. Noble noted the fact there were two kinds of disinfectants—those in aqueous solutions represented by solutions of carbolic acid and mercuric chloride in water, and the aerial disinfectants, represented by sulphurous acid and formaldehyde. Dr. Taylor's paper took up the most recent investigations in regard to formaldehyde gas. He cited experiments from the University of Illinois, which go to prove this gas to be the best and surest disinfectant extant. Five ounces of formalin will disinfect 1,000 cubic feet of air in four hours. The St. Louis method was illustrated. This consists in heating a solution of formalin in water in a copper bucket, on a wood alcohol lamp, in a closed room for four hours. It has been discussed that the formaldehyde gas in the presence of moisture or steam will destroy all exposed germs. These papers were fully discussed by those present, and the result was a committee of five members of the Society was appointed to formulate the latest methods of disinfection and sanitation, and present them to the City Council. This committee consists of the following gentlemen: C. E. Chapin, J. B. Taylor, W. E. Guthrie, A. L. Fox and D. O. Moore.

J. Whitefield Smith showed the Society a new self-retaining tongue depressor and holder which he had devised, which seemed to fulfill its purpose.

The Society adjourned to meet the first Thursday in November.

F. C. Vandervort, Reporter.

The Sangamon County Medical Society met in the Circuit Court room Wednesday evening, October 17, 1900, and was called to order by Dr. J. N. Dixon, the President being detained by lateness of train.

Members present: A. D. Taylor, H. C. Hill, Brayshaw, Barker, Bartlett, Kreider, Shutt, Dixon, Percy Taylor, Nelson, Babb, Buck, Crocker, Fisher, Griffith, M. T. Kelley, J. W. Kelly, Munson, Stericker, Young and Jos. Trigg.

Visitors: Geo. E. Clements, O. F. Maxon and E. S. Spindel.

Minutes of last two meetings were read and approved.

Report of Directors upon applications of Drs. Trigg and Stuttle being favorable, upon motion they were both elected to membership.

Report of committee upon spitting in public places was received as follows:

To the Officers and Members of the Sangamon County Medical Society:

Your committee to whom was referred the subject of expectoration in public places, for recommendations, suggest the following: Owing to the universal prevalence of lung disease in the form of consumption, and to the fact that the germs which produce the same are contained in the sputum, we would recommend that expectoration in public places be condemned as unsanitary and a menace to the public health. Also that persons known to be afflicted with consumption be acquainted with the fact that their sputa by becoming dried and pulverized, contaminates the air, and those breathing the germ laden atmosphere are almost certain to contract the same disease. We would suggest that placards be placed in all public buildings, and assembly places, calling the attention of the public to this subject. Also require those having control of such places to provide, and properly care for, suitable cuspidors for the use of those feeling compelled to expectorate under such surroundings, and enforce the use of same.

B. B. Griffith,
Helen Babb,
Edward P. Bartlett,

Committee.

After remarks by A. D. Taylor, Young, Dixon, M. T. Kelley, J. W. Kelly, Munson, Bartlett, Buck and others, upon motion of the Secretary the President was requested to appoint a committee to wait upon the City Council, and to give encouragement to a bill now before said body looking to the regulation of the matter under discussion.

The following members were appointed: Drs. Buck, Nelson and Munson.

Upon motion of the Secretary an auditing committee was appointed to audit the books of the Secretary and Treasurer, and to have their report ready by the next meeting of the Society, and the following were named as said committee: Drs. Stericker, J. W. Kelly and A. D. Taylor.

A letter from Dr. Carl Black, chairman of Committee on Medical Legislation of the Illinois State Medical Society, was read, and upon motion the President appointed the following

as a committee of three "for the good of the profession:" Drs. B. B. Griffith, C. S. Nelson, C. M. Bowcock.

Bill of the Journal Company for \$1.50 was read and ordered paid.

Bill of Secretary for postage and stationary for \$1.50 was also allowed.

Dr. Munson showed a microscopical specimen, showing a large number of staphylococci from urine of patient.

Dr. Kreider having arrived and occupying the chair, Dr. Dixon gave a very interesting account of his recent visit to the Drs. Mayo, of Rochester, Minn., and a description of their surgical clinic. Said Rochester was a town of about 4,500, and of no greater importance than other towns of same size in that state, but by the energy, honesty and ambition of these young men, had attained a national reputation for one of the finest surgical institutions in the land. Described the Brothers Mayo, and spoke in the highest terms of them as men, and particularly as great surgeons, and held them up as examples for the young and struggling physicians, showing that it was not necessary for success and the accomplishment of great deeds in the profession for one to be in a great city, or associated with great men—honesty, industry and ambition being all that is necessary for the man with brains to win success.

The report of St. Mary's Hospital, Rochester, Minn., for the tenth year, certainly justifies the praise given by Dr. Dixon to these surgeons; in 1,247 cases operated upon extraperitoneal, only one death occurred—cerebellar abscess, which was trephined. In 470 cases operated upon intra-peritoneal, including 62 laparotomies and 96 for appendicitis, only twelve deaths occurred, one of these dying fifty-two days after operation from secondary liver infection. Certainly a remarkable record of operations and recoveries. The personal life of the brothers was commended and their brotherly affection noted as most charming, a common purse being used and no settlement having ever been made, and as declared by both, never to be made between them. From seven to fifteen operations were performed daily during the six days of the week while Dr. D. was there, many of the most delicate character. No advertising of the business is allowed nor countenanced, but the good work done by these men makes them widely known.

After an oyster supper, the Society adjourned to the second Monday in November, when the annual meeting and election of officers will take place.

Edward P. Bartlett, Secretary.

Chicago Pathological Society. Regular meeting, Oct. 8, 1900. Dr. Ludvig Hektoen, President, in the chair.

Dr. S. E. Munson, of Springfield, Ill., read a paper upon "Milk Supply," discussing in particular the relation between milk supply and tuberculosis. The recent literature bearing upon the subject was discussed, and the use

of tuberculin and the slaughter of cows giving a reaction were advocated.

The paper was discussed by Dr. W. A. Evans and Dr. Adolph Gehrmann.

Dr. Evans spoke of the various measures advocated for the elimination of tuberculosis from herds of cows, and concluded by advising the killing of all tubercular cows, as has been urged by Virchow.

Dr. Gehrmann referred to the measure taken by the Chicago Health Department relative to the detection of tubercle bacilli in milk. The examination of a general milk supply for the bacilli has been discontinued, and only the milk from individual cows is tested. The use of tuberculin is always recommended in any case where suspicion is aroused, in preference to the examination of the milk. The detection of pus in milk is considered sufficient evidence upon which to condemn it, even in the absence of tubercle bacilli.

Dr. Brown Pusey demonstrated specimens of a glioma of the retina (so-called "neuro-epithelioma"). His remarks were as follows:

"The fact that current pathological literature contains several articles on the subject of glioma of the retina, has suggested the idea that the members of this Society might be interested in seeing sections from such a tumor, on which I have recently been working.

The present agitation of the subject of glioma of the retina undoubtedly is due to the article of Flexner, published August, 1891, and to the book of Wintersteiner, *Das Neuro-epithelioma des Netzhaut*, published 1897. In these publications particular attention was paid to the "rosettes" found in such tumors. Wintersteiner described the rosette as composed of cells derived from the neuro-epithelial layer of the retina; the wall of the central cavity of the rosette, he considered corresponded to the external limiting membrane of the retina, with rudimentary rods and cones projecting into the central cavity. Flexner and Wintersteiner, working independently, came to similar conclusions, and from these studies suggested the name *Neuro-epithelioma retinae* to replace the term *glioma retinae*. These conclusions have been accepted by many authorities; others have opposed them.

Two facts have been particularly hard to explain when considering these tumors as new growths, derived from the neuro-epithelial layer of the retina. One is, that according to present views, such highly differentiated tissue does not form tumors; the other is, that gliomata arising elsewhere than in the eye have very similar rosettes.

The tumor, from which I exhibit specimens this evening, was evidently removed in a very early period of its development. It shows the rosettes unusually clearly; for your comparison, I have brought with me specimens procured when a student of Wintersteiner, and also specimens from the tumor on which Enanuel did his work—the article published in August number of Virchow's Archives—

these I got when at work two years ago in Leber's laboratory.

Especial interest attaches itself to my specimen from the fact that there can be no doubt that the cells of the rosettes of this tumor do in places split up into fibrous tissue—into *neuroglia*.

I think it would require a great stretch of the imagination to look at some of my sections, and then speak of rudimentary rods and cones projecting into the central cavity of the rosette. I believe that my specimens demonstrate that the rosettes are composed of cells which form *neuroglia*; in other words, that the suppositions of Flexner and Wintersteiner that these tumors are *neuro-epitheliomata* are incorrect, and that these tumors are, as was formerly believed, true *gliomata*."

In the discussion Dr. M. Herzog agreed that the tumor consisted of glia cells, and that if blood could be demonstrated in some of the spaces, the picture would correspond to a glioma of the central nervous system.

Dr. H. Duncan demonstrated specimens of "Castration Tumors" from swine, and made the following remarks:

"There is a disease of swine characterized by a tumor or growth, which as a rule appears after castration, occupying the position of the testicle. Similar growths occur, however, in other situations, and in the female, usually on the breast.

A trauma of some kind invariably occurs previous to the appearance of the growth. The clinical history of the disease is briefly as follows: About two weeks after castration, at the seat of the castration wound, a swelling appears. The tumor as a rule grows rapidly, and in from three to five weeks one or more ulcers appear in the cicatrix. Close inspection shows the ulcers to be the external openings of fistulous tracts, from which there is a constant discharge of purulent material—the discharge may be intermittent. Not infrequently the growth acquires enormous proportions as compared with the weight of the animal, and in such cases may drag upon the ground. During the early stages the animal thrives, later it becomes cachectic, loses flesh and dies about twelve months after the inception of the growth.

The growth is in anatomical connection with the distal end of the spermatic chord. It is in most cases single, but there may be two or more growths on the same side of the scrotum. It consists of a softened center enclosed by a capsule of firm vascular white fibrous tissue. The fibrous tissue merges externally into a loose, fibro-myxomatous, sometimes edematous, tissue. The form of the swelling is generally round or oval. There may be smaller secondary tumors or nodules in close relation to the primary growth, varying in size from as large as a pea to as large as a hen's egg, having a structure similar to that of the primary growth. More rarely small nodules are strung along the course of the cord.

The histology of the growth is uniform and

corresponds to the macroscopic appearance, viz.: a structureless, necrotic center with an enclosing zone of scar tissue.

In sections stained for bacteria the necrotic border is seen to contain numerous organisms, sometimes in enormous numbers. There may be bacilli of varying lengths, threads and cocci. The threads stain uniformly or appear as strings of deeply staining spores or cocci. Some of the threads branch.

In all, more than twenty tumors have been examined, and cultures under both ordinary anaerobic conditions have been made. Usually from two to seven different organisms have been isolated from each tumor examined. None of the organisms isolated were virulent enough to kill guinea pigs. The bacteriologic results were not uniform. A ray fungus was isolated from three of a series of seven tumors. Smears from all of the series show threads, some of which branch. Swine were inoculated subcutaneously with pure cultures of the ray fungus with negative results. A sixty-pound male pig was inoculated by removing the right testicle, inserting a small piece of necrotic material from one of the growths and sewing up the wound. The result was a fairly typical growth at the site of the inoculation. It is interesting to note that the remaining testicle was partly necrotic, partly scar tissue and a portion external to the growth was comparatively normal. The disease is not infrequent among the swine herds of the Southwest, as Iowa, Kansas, Missouri.

I am especially indebted to Dr. Day, Government Inspector at the Vilas-Robbins slaughter house, for specimens of the tumors furnished. George H. Weaver, Sec'y.

The Morgan County Medical society met in regular session Thursday, Sept. 13, 1900.

Members present: Drs. Adams, Black, Boone, Bowe, Campbell, Caldwell, Day, Harvey, Mannis, McLaughlin, Norbury, Pitner, Reid and Thompson; and Drs. Crane, DaCosta, Epler, Lois Nevill and Messrs. Day and Stacy as visitors.

Report of committee on ventilation and heating of the new high school building. Dr. Pitner said: Your committee has conferred with the school board and were received most courteously. The board has arranged for an adequate modern system of heating and ventilating and will confer with the committee from this society as the building progresses.

Moved and carried that this committee be continued.

Under new business Dr. Black called the attention of the society to the fact that the instruments, drugs, microscope and a Yale chair belonging to our colleague, Dr. Frost, were for sale. These are all modern and in first class condition and can be seen at the residence of Dr. Frost on West College avenue.

Appointees for October—Drs. Reid, Virginie Dinsmore and Vertrees.

For November—Drs. Pitner, McLaughlin and Mannis.

Proposals for membership—Drs. Harry Carriel and Lois Nevill.

Regular order. Paper by Dr. Thompson on "Appendicitis."

Extensive discussion followed.

Carlinville, Ill., Oct. 16, 1900.

The semi-annual meeting of the Macoupin County Medical Society was held in the Masonic reading room, and was called to order by President Barto, of Plainview.

The following members responded to roll call: F. C. Barto, Plainview; A. C. Corr, East St. Louis; L. H. Corr, J. S. Collins, C. J. C. Fischer, J. P. Matthews, J. Palmer Matthews, and J. P. Denby, of Carlinville, eight in all.

The minutes of the preceding meeting read and approved.

The treasurer's report was read and adopted, showing \$6.30 in the treasury.

The secretary read a card from Secretary Weis, of the State Society, appointing the secretary ex-officio reporter to the State Medical Journal.

It was the sense of the society members that full reports of the society proceedings be made to the Journal semi-annually.

A communication from "The Profession of the Northwest," stated a banquet would be given to Dr. Christian Fenger on Nov. 3, and requested that a member be appointed to represent our society on committee of arrangements. Signed by Drs. Evans, Baum and Murphy, of Chicago. The society appointed Dr. Collins to represent them on the committee.

Dr. J. F. Percy, Galesburg, Ill., Secretary Judicial Council, Illinois State Medical Society, requested that we report to him an eligible list for governor's appointments to fill State offices. It was the sense of the society that we were all eligible, but by resolution we reported the name of A. C. Corr, of East St. Louis, to the favorable consideration of the Governor.

Resolutions were read from the Morgan County Medical Society embodying the sentiments expressed in the papers on medical legislation read before the convention of eight local societies held in Jacksonville in April, 1900.

A communication from Dr. Carl Black, of Jacksonville, requested a committee of three be appointed by our society for the good of the profession to represent us in the councils of the State Society. The president appointed J. P. Matthews, C. J. C. Fischer and J. C. Collins.

Under the head of reports of cases, J. Palmer Matthews reported a case of Colles' Fractures, in Mrs. S., age past 50, who fell forward on her hands, and sustained fractures in both wrists. After anaesthesia the arms were placed in pistol shaped splints with interosseous ridges along center of under splints. After two weeks the pistol shaped splint was replaced by the "Levis" splint, and passive motion with massage was daily practiced. The radio-carpal ligament was shown to bear the strain of the fall and the fracture always occurred through the lower end of the radius at its attachment. The pistol splint is used to antagonize the action of the supinator longus muscle, attached to the displaced fragment of bone.

In the afternoon session the following papers were read and discussed:

An Axiom of Ophthalmology, by A. C. Corr.
"Acute Nephritis," by J. S. Collins.

Dr. Corr's paper emphasized the fact that a cataract should be extracted when mature, before inflammation supervenes, involving the cornea, ciliary body and deeper structures of the eye, as well as the nerve of the other eye through sympathy. Immature cataracts are easily manipulated, because of their consistency throughout. The hyper-mature cataract softens down to a fluid state with small nucleus and is difficult to extract. The old idea is false to wait till cataract ripens or coagulates for time only softens it down and renders it more difficult to extract.

After a short discussion the paper was by motion accepted as a contribution to the society.

An abstract of Dr. Collins' paper on Nephritis will appear later.—(Editor).

J. Palmer Matthews, Secretary.

The Brainard District Medical Society met at Jacksonville, October 25. The following program was presented:

Causes of Blindness in the Illinois School for the Blind—A. L. Adams.

Report of Case of Placenta Previa—Herman Rotherth.

Discussed by T. J. Pitner.

Report on Microscopy, "Malaria." Something on Staining Methods—S. E. Munson.

Cocainization of the Spinal Cord. With report of case—Carl E. Black.

Discussed by A. G. Servoss.

Brain Tumor—E. L. Crouch.

Katharine Miller, Secretary.

Marriages, Deaths, Change of Address

MARRIAGES.

Dr. Elias Davis, of Peoria, and Miss Duffner, of Nilwood, Oct. 3.

Dr. A. R. Da Costa, of Chicago, and Dr. Helena K. Gray, of Princeton, Ind., Oct. 17.

Dr. M. J. Prendergast and Miss Lillian Mallory, both of Chicago, Oct. 25.

Dr. Chas. Heller and Miss Rosie Greenhoot, both of Chicago, Oct. 16.

Dr. Louis A. Mueller and Miss Louise Wilke, both of Chicago, Oct. 19.

Dr. Chas. F. Weir and Miss Eleanor Reeves, both of Chicago, Oct. 16.

Dr. A. N. J. Dolan and Miss Georgia Sexton, both of Chicago, Oct. 10.

Dr. John E. McIntosh, of Ravenswood, and Miss Edith A. Patterson, of Edgewater, Oct. 10.

Dr. J. Frank Wilson and Miss Della Vandeventer, both of Versailles, Sept. 30.

Dr. J. C. McMillan and Miss Edna Maud Carpenter, both of New Berlin, Oct. 11.

Dr. Frank B. Fisher, of Springfield, and Miss Carrie Furber, of Carlinville, Oct. 3.

Dr. Frederick L. Hamil, of Lincoln, and Miss Laura E. Cooley, of Virginia, Oct. 17.

DEATHS.

(Furnished by the State Board of Health.)

Bozarth, David, at Stone Fort, Sept. 10.

Connor, John J., Chicago, Sept. 17.

Hillis, David B., at Keokuk, Ia., Sept. 9.

James, Thos. L., at Waterloo, Oct. 12.

Mills, John, at Pana, Oct. 16.

McKee, Joseph, at Denver.

Newcomer, David, at Mt. Morris, Oct. 19th.

Parsons, S. V., at St. Louis, Mo., June 9.

Stewart, Elam L., at Carmi.

Suggett, Jas. M., at Flora, Oct. 9.

Wetmore, A., at Waterloo, Oct. 27.

CHANGES OF ADDRESS.

(Furnished by the State Board of Health.)

CHANGES IN CHICAGO.

Allen, A. D., 324 S. Hermitage st. to 92 State st.
Brown, Geo. J., 1307 Madison st. to 79 S. Sacramento ave.

Behm, Chas. W., 405 to 409 Lawrence ave.

Bailey, Samuel G., 31 Washington st. to 165 22d st.

Buford, C. G., 269 LaSalle ave. to 448 N. Clark.

Beilstein, F. W., 5200 Loomis st. to 5123 Wentworth ave.

Bartholomew, R. W., 306 to 354 S. Wood st.

Baker, W. E., Home Insurance Bldg., to 391 S. Paulina st.

Buckner, Wm. A., 362 30th st. to 3024 Dearborn st.

Becker, Wm. L., 2943 Wabash ave. to German Hospital.

Butt, Geo. B., 2252 Wabash ave. to Provident Hospital.

Benson, E. O., 69 Clybourne ave. to Augustana Hospital.

Cross, E. D., 3748 Albany ave. to 2426 38th Pl.

Campbell, Lillian, 274 W. Polk st. to 7336 Estes ave.

Collins, L. C., 481 Wabash ave. to 4830 Madison.

Collins, H. E., 3819 Rhodes ave. to 46 37th Pl.

Cullen, Geo. A., Ill. Steele Co. Hospital to 176 23d st.

Cunningham, N. M., 308 E. 60th st. to 499 E. 63d st.

Davis, E. G., 1732 Diversey st. to 1203 State st.

Damm, E. F., Passavant Hospital to German Hospital.

Dunlap, John, 580 Washington Boul. to 787 Grand ave.

Damiani, Jos., 174 N. Halsted st. to 220 Milwaukee ave.

Eisendrath, D. J., 3055 Indiana ave. to 103 State st.

Fegan, Geo. R., 960 Hermitage ave. to 280 S. Leavitt st.

Fiske, David, 425 LaSalle ave. to 451 Division st.

Gatchell, C. B., 162 30th st. to 70 State st.

Gilderman, F. H., 279 Clybourne ave. to 1486 Roscoe st.

Guest, T. A., 2056 Van Buren st. to 2294 Wilcox ave.

Holsteen, W. F., 92 State st. to 718 S. Halsted st.

Heimlich, A. F., 3909 Luke ave. to 735 Larrabee

Herbert, R. H., 19 N. Ashland ave. to Cook Co. Hospital.

Hart, H. G., 6755 Emerald ave. to 100 State st.

Horwitz, A. P., 2441 Indiana ave. to Alexian Bros. Hospital.

Hammond, F. W., 2811 Cottage Grove ave. to Hahnemann Hospital.

Hultgen, J. F., 2338 Indiana ave. to Cook Co. Hospital.
 Jacobs, Anna, 65 Bryant ave. to Hahnemann Hospital.
 Jakubowski, S., 535 Garfield ave. to Cook Co. Hospital.
 Koethe, A. C., 64 Arbor Place to Montclare.
 Kuehne, Wm. B., 835 Harrison st. to 638 Jackson Boul.
 Kelly, Jas. W., 1751 Wrightwood ave. to 259 Webster ave.
 Ling, F. B., 424 Ogden ave. to 155 S. Robey st.
 McIntyre, E. R., 100 State st. to 92 State st.
 Medaris, Anna, 589 W. Van Buren st. to 638 Jackson Boul.
 McCall, F. B., 876 St. Louis ave. to 5540 Aberdeen st.
 Mack, M. H., 3000 to 3505 Indiana ave.
 McConnell, J. W., 519 W. Chicago ave. to St. Elizabeth's Hospital.
 Orton, Susanne, 394 Marshfield ave. to 298 Maxwell st.
 Orvis, G. S., 167 S. Sangamon st. to Temperance Hospital.
 Piper, E. D., 2116 Monroe st. to 3521 S. Hermitage ave.
 Pech, Albert, 4034 Prairie ave. to Provident Hospital.
 Rochards, J. R., 221 S. Sangamon st. to 168 S. Halsted st.
 Roth, R. G., 46 W. 24th Place to 638 Jackson Boul.
 Rowell, L. W., 45 Loomis st. to 479 Dearborn ave.
 Switzer, C. R., 505 Atwood Boul. to 57 Washington st.
 Saunders, C. B., 272 E. Erie st. to 211 E. Chicago ave.
 Sawrenhaus, Ernest, 452 Dearborn ave. to 582 LaSalle ave.
 Schirmer, Alfred, 547 Blue Island ave. to 401 Marshfield ave.
 Shaff, John N., 766 N. Park ave. to Augustana Hospital.
 Tufts, Frank S., 2718 Michigan ave. to 247 Polk st.
 Tallman, C. A., 8665 Vincennes Road to 838 W. 87th st.
 Tallman, H. H., 732 W. 32d st. to 70 State st.
 Thoren, O. C., 1501 W. 15th st. to 126 State st.
 Wright, S. E., 2139 Wabash ave. to Chicago Hospital.
 Worley, Wm. H., 2814 Groveland ave. to Hahnemann Hospital.
 Wilson, H. K., 2922 Prairie ave. to 6300 S. Halsted st.
 Weatherson, John, 3739 Prairie st. to 103 State st.
 Weinstrand, D. E., 2328 Calumet ave. to Cook County Hospital.
 Wallace, T. A., 6658 Wentworth ave. to 170 E. 79th st.
 White, E. T., 4309 Calumet ave. to 4646 Vincennes ave.
 Webber, C. E., 4304 Grand Boul. to 155 E. 25th st.
 Zeitler, Johannes, 221 Montrose ave. to 1934 Lincoln ave.
 Zahn, B., 102 S. Leavitt st. to cor. Leavitt & Harrison sts.

CHANGES FROM CHICAGO.

Byrnes, Peter, to Harvard.
 Baum, E. W., to Morocco, Ind.
 Crain, Mattie M., to Dongola.
 Lewis, LeRoy to Bay City, Mich.
 Moldenhauer, Gustav H., to Des Plaines.
 Morgan, Mary E., to Aledo
 Mitchell, Jas. M., to Pontiac.
 Piper, R. S., to Bloomington.
 Podstata, Vaclav, to Hospital.
 Porter, G. S., to Clinton.
 Potter, Ward E., to Peoria.
 Pogue, Mary E., to Lincoln.
 Phalen, Jas. M., to Harvard.
 Roehler, Henry D., to Bloomington.
 Sherman, Wm. P., to Aurora.
 Sears, Geo. L., to Milan.
 Shaff, John N., to Cisco.
 Shultz, Chas. E., to Colfax.
 Simpson, Burton J., to Moline.
 Schall, Jas. G., to Olena.
 Test, Annabel C., to Dundee.
 Tillottson, H., to Kansas City, Mo.
 Voigt, Chas. B., to Mattoon.
 Walsh, Henry F., to Belle Isle.
 Walter, L. P., to Clinton, Ia.
 Wyllys, Henry A., to Kingston.
 Wilson, J. Frank, to Versailles.
 Washburn, A. T., to Lexington.

CHANGES TO CHICAGO.

Alexander, J. S., to 356 S. Wood st.
 Brown, W. C., Austin to 115 N. Park ave.
 Burkholder, S. G., Delphi, Ind., to 3135 Vernon ave.
 Beehler, L. L., Manchester, Ia., to cor. 24th st. & Indiana ave.
 Boughton, W. T., Rock Island to 624 Larrabee st.
 Babcock, Margaret M. C., Pennsylvania to 116 Bunker st.
 Brown, Warren, Tacoma, Wash., to 5440 Ridgewood Court.
 Cassady, G. W., Missouri to 98 E. Washington st.
 Da Costa, A. R., Woodson to 647 Cleveland ave.
 Dryden, Wm. F., Galva to 1184 W. Monroe st.
 Davies, R. A., Fremont, Neb., to 1010 Monroe st.
 Dunn, R. J., to 262 S. Halsted st.
 Dornbush, H., Des Plaines to 1044 N. 41st ave.
 Early, C. S., Cranberry, Ohio, to 813 Harrison st.
 Farrington, H., Pennsylvania to 891 Winthrop ave.
 Farrell, P. J. H., California to Del Prado Hotel.
 Galliver, G. A., Austin to 763 Estes ave.
 George, A. W., Battle Creek, Mich., to 1921 Wabash ave.
 Gillham, F. W., Bunker Hill to 347 S. State st.
 Harvey, F. P., Dana to St. Anthony's Hospital.
 Hammond, Hogue, R. R. North Dakota to 859 Washington Boul.
 Judd, N. W., Janesville, Wis., to Chicago.
 Jamieson, John K., Lake Forest to Cook County Hospital.
 Kleinpell, H. H., Cassville, Wis., to 100 N. State st.
 Nusbaum, L. M., Minier to 4409 Greenwood ave.
 Norris, J. A., to 7338 Stewart ave.
 Pitkin, Alice F., Akron, O., to 1291 Perry st.

Poynton, R. A., New York to 208 Commercial Bldg.
 Robinson, J. W., LaSalle County to St. Elizabeth's Hospital.
 Ringland, E. B., to 910 Schiller Bldg.
 Stewart, D. F., Lafayette to 3459 State st.
 Voss, Casto, to 756 W. North ave.
 White, Julia A., Batle Creek, Mich., to 1926 Wabash ave.

CHANGES FROM ILLINOIS.

Browning, Harry D., Little York to Oskaloosa, Ia.
 Conway, J. S., Streator to Joplin, Mo.
 Chenoweth, W. J., Decatur to California.
 Estep, C. S., Lexington to Ohio.
 Green, Ernest A., Norris City to Crossville, Wis.
 Hoel, Geo. L., West Liberty to Fort Collins, Col.
 Kinney, C. P., Crossville to Dry Ridge, Wis.
 Mitchner, Guy O. W., Kansas to St. Louis, Mo.
 Moses, Howard N., Little Rock to Kansas City, Mo.
 Murphy, T. C., Manito to Enterprise, Miss.
 Nichols, Maud E., Tuscola to Europe.
 Stoker, Wm. A., Anna to Indiana.
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 Curtiss, C. R., Allegany, Pa., to Joliet.
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 Crowley John F., to LaSalle.
 Covington, E. G., New York to Bloomington.
 Fulkerson, R. M., to Ozark.
 Fullenwider, Robt. C., to Clinton.
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 Kehr, Samuel S., to Sterling.
 Kinney, Thos. J., to Mound City.
 Lyons, Jennie, Ohio to Hume.
 Larned, E. R., to Joliet.
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 Layton, Oliver M., to Cameron.
 McGrew, Frederick A., to Davis.
 Moore, Landon C., to Reynolds.
 Moore, N. M., to Rock Island.
 Owens, D. W., Colorado to Hersman.
 Peyton, R. S., to Pinckneyville.
 Pinckerton, Walter J., Nebraska to Ludlow.
 Pelletier, D. H., Indiana to St. Anne.
 Sanders, Jos. Wisconsin to Glenview.
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 Wright, John, to Oregon (State).

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 Bergeron, E. D., Bourbonnais to Kankakee.
 Burwell, E. A., Nokomis to Decatur.
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 Mitchell, Ed. L., Roseville to Monmouth.
 Maxon, J. S., to Harvard.
 MacNeal, Arthur, Riverside to Berwyn.
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 McGinnis, Philip D., Lockport to Odell.
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 Stowell, Luther E., Williamsfield to Edelstein.
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 Travis, Arthur L., Rockefeller to Princeton.
 Trovillion, M. H., Brownfield to Round Knob.
 Van Doren, Wm. H., Mansfield to Woodstock.
 Wood, E. W., Oak Park to Palatine.
 Wells, Wm. H., Erie to Monmouth.
 Wiseman, LeRoy J., Peoria to Pontiac.
 Whiteside, R. L., Resort to Grantsburg.
 Wright, Nelson A., Ramsey to Manito.
 Wilson, G. S., Rosewood to Nokomis.
 Westerlund, Jos. E., Cambridge to Orion.
 White, Justus V., Dow to Jerseyville.
 Yoder, H. L., Pekin to Morton.

RETIRED FROM PRACTICE.

Reynolds, W. F., of El Dara.

ILLINOIS Medical Journal

The Official Organ
of the
State Medical Society



A Monthly Bulletin
Edited by the
Publication Committee

Printed by
THE ILLINOIS STATE JOURNAL COMPANY.

Entered in the Springfield Postoffice as Second-Class Matter.

Volume L. New Series, Vol. II. } Number 7. }	Springfield, Ill., December, 1900.	{ Subscription, \$3 a Year. Single Copies, 25 Cents.
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The names of all members of Chicago Medical Societies appear in this issue, pp. 327-336.

TABLE OF CONTENTS.

ORIGINAL ARTICLES.		CORRESPONDENCE.	
The Treatment of the Opium Habit by the Bromide Method—Archibald Church, M. D., Chicago.....	291	Stand by the Committee.....	310
Everyday Headaches—Hugh T. Patrick, M. D., Chicago.....	297	Endorsements of Dr. J. A. Egan.....	310
Treatment of the Sac in Very Large Inguinal Herniæ—M. L. Harris, M. D., Chicago.....	303	Legislative Committee.....	311
EDITORIALS.		REPORTS OF SOCIETY MEETINGS.	
Competent Officials Should be Retained....	306	Jo Daviess County Medical Society	315
Fenger Banquet.....	306	Crawford County Medical Society	315
Important Announcement.....	306	Champaign County Medical Society.....	315
Change Date of Meeting.....	307	Decatur Medical Society.....	316
Defeat the Object of the State Society.....	307	Pike County Medical Society.....	316
		Sangamon County Medical Society	317
		Southern Illinois Medical Association.....	317
Executive Committee Meeting	307	Military Tract Medical Association	318
Meeting of Suggestions	308	Chicago Neurological Society.....	317
		Chicago Pathological Society.....	321
		Brainard District Medical Society.....	324
		Marriages.....	305
		Alphabetical List of Members of the Chicago Medical Societies.....	327-336

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NEXT ANNUAL MEETING WILL BE HELD IN PEORIA,
MAY 21, 22, 23, 1901.

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Permanent Secretary's Office, Ottawa.

The Illinois Medical Journal.

The Official Organ of The Illinois State Medical Society.

VOL. L.
New Series, Vol. II. }
No. 7.

Springfield, Ill., December, 1900.

{ SUBSCRIPTION
\$3.00 A YEAR.

THE TREATMENT OF THE OPIUM HABIT BY THE BROMIDE METHOD.*

BY ARCHIBALD CHURCH, M. D.

Professor of Medical Neurology, Chicago Medical College, Medical Department Northwestern University; Neurologist to St. Luke's and Wesley Hospitals.

The purpose of this communication is to offer a suggestion and furnish with it a very decided warning.

In the British Medical Journal of July 10, 1897, Dr. Neil Macleod, of Shanghai, reported 7 cases which he had treated by what he called the "bromide sleep." The suggestion therein contained impressed me strongly at the time and I made an abstract of it for the department of Nervous Diseases in the Year Book of Medicine and Surgery, published by Saunders of Philadelphia. April 15, 1899, in the same journal, he made a further contribution, and a final one January 20, 1900.

Briefly, the purpose of the bromide treatment is to stupify the patient utterly for a number of days, during which time the opium is rapidly withdrawn and recovery had from the physical disturbance secondary to its withdrawal. The plan of treatment was hit upon by accident. Macleod states that early in 1897 a neurasthenic lady addicted to morphine for 9 years, by accident had administered to her $2\frac{1}{2}$ ounces of sodium bromide in something over two days. A profound sleep was induced lasting several days and when its effect wore off the craving for morphine had ceased and with it the various disturbances which had led to its use. A few months afterwards a pilot who was addicted to morphine and alcohol, agreed to try the effect of the treatment, and no suffering was experienced during the withdrawal of the morphine, craving for which as well as alcoholic inclination, disappeared

on recovery from the bromide sleep. The third case was one of acute mania. The 4th case was a Chinaman addicted to chloral for two years, and the result was perfect. In the 5th case the bromide sleep was used to check the uncontrollable vomiting of a neurasthenic woman, with alleged benefit. In the 6th case, a morphine and cocaine sufferer, was cured of craving for both drugs. In the 7th case a woman was relieved of a nine years morphine habit, without suffering. In the 8th case, a physician addicted to morphine and cocaine, upon the 7th day succumbed to an attack of double pneumonia which had supervened. In the 9th case, a married woman who had for years been addicted to the morphine habit, was successfully relieved. In the 10th case, one of acute delirious mania, the patient died, as Macleod believes, through sepsis arising from a purulent disorder in the mouth and throat.

Macleod stated in his early communications that the use of the bromide in the manner he had outlined was practically without danger, that it could be carried out in a private house with the assistance of a trained nurse; that the intense suffering, vomiting, purging, sweating, sneezing, pains and cravings for morphine, which mark the sudden withdrawal, could be entirely avoided, and that, best of all, after the treatment the craving for the drug was entirely abolished so that the tendency to relapse so unfortunately prominent in all other lines of treatment, was completely done away with.

I was led by these early representations to make an attempt upon this line of treatment, and submit two case histories.

Dr. X., 49 years old, recently married for the second time. Has been doing a large medical practice for many years. Acquired the opium habit 17 years ago,

*Read at the Fiftieth Annual Meeting of the Illinois State Medical Society, Springfield, May 16, 1900.

using the hypodermic method. The practice has been discontinued twice since, once by his own efforts with an interval of a year, and once by treatment at Dwight, with an interval of about six months. On both occasions his suffering, craving and discomfort were extreme and are described in energetic terms.

Six months ago he was taking 60 grains of morphine, by the hypodermic method, daily, and had been able to get this down to 10 grains at the time he applied for relief.

Dec. 4, 1899 he was admitted to St. Luke's Hospital, under my care, having agreed to take the bromide treatment as outlined by Macleod. At this time he weighed 182½ pounds and appeared to be in fine physical condition. Blood and urine normal and bodily organs apparently sound.

At 9:30 that night he received 2 grains of morphine, hypodermically, his usual dose, and was ordered 120 grains of bromide of sodium every 2 hours, with morphine as he might need it or request it.

Dec. 5th. The bromide was continued at the same dose and rate, practically one grain a minute. He had one-half grain of morphine at 4 p. m. He had slept all through the night and was sleeping soundly most of the afternoon. About midnight a frequent cough developed.

The 3d day the bromide was administered every four hours and no morphine was given. A milk diet was used. During the early morning hours his respiration was slightly irregular but he was sleeping quietly. The bowels were opened by enema. In the afternoon sneezing became troublesome and there was considerable perspiration. The pharynx also had a tendency to fill with mucus with free expectoration. The patient had been sleeping the larger share of the time and was feeling perfectly comfortable. He had thus far taken 990 grains of bromide.

The 4th day the bromide was continued, two drams every four hours until noon, when it was increased to every 2 hours, as the patient was restless, inclined to vomit

and get out of bed and objected to management. The vomiting indeed was very free. It was noticed that the patient was weak and ataxic when he walked or attempted to, and his movements were uncertain. The pulse was decidedly slow, running down at 7 p. m. to 48; respiration 28, temperature normal. One-tenth of a grain of strychnia was given at 10 in the morning. The bowels were opened by enema and the strychnia was to be repeated as the pulse indications suggested. The bromide was continued every four hours until 9 a. m. the 5th day, when it was stopped, the patient having taken up to this time 2,860 grains, or six ounces lacking two grains. At this time he was restless and partly unconscious, with irregular respiration, sneezing, free expectoration and looseness of the bowels. The pulse was down to 44 and weak; respiration running up to the 40s, temperature normal. Strychnia one-fifteenth of a grain was given every two hours, under which the pulse improved by 4 p. m., to 64 and respiration subsided to 32. He was sleeping continuously, occasionally sneezing and coughing.

The 6th day the strychnia was continued and atropia was added to check the large amount of secretion in the naso-pharynx. The bowels moved involuntarily, the breathing was somewhat difficult owing to the mouth and throat being full of mucus, requiring frequent sponging with antiseptic solutions. At 5 p. m. his pulse was 49, his respiration 36. The pulse was strong, however. Temperature normal. Under the strychnia by evening his pulse had gone up to 72 and his respiration was 40. The breathing was labored but the chest was clear. The patient was more or less comatose.

The 7th day the condition seemed alarming. At 9 a. m., his pulse was 86 his respiration 55. At 3 p. m., his pulse was 88, his respiration 76. At 4 p. m. his pulse was 90, his respiration 62. This day he was seen with me by Dr. Billing; who thought it improbable that he would recover. Oxygen was administered for minutes every hour and to the atropia and strychnia he was receiving was added one

eighth of a grain of morphine, to assist his respiratory center.

The 8th day the strychnia and morphine were continued as needed until 9 a. m., the pulse having averaged 80 the respiration 50 during the night. The patient continued comatose but he was breathing more quietly and presented a better color. Incontinence of urine was continued, and he was supported by enemata of milk with normal salt solutions.

The 9th day he presented a slight temperature, 99.6, was less comatose, tried to get out of bed, sneezed a number of times, very full of mucous. The pulse ranged from 72 to 90, respiration from 38 to 44. The sneezing and mucous were readily controlled by 1.100th of atropia, hypodermically, and the strychnia injections with atropia were continued every two to four hours, as required.

The 10th day the patient was decidedly better, respiration 30 to 40, pulse 62 to 82, usually 70 to 75. He commenced to take milk by the mouth, slept quietly most of the time. When awake talked in a quiet, but delirious manner. The urine on this day, as on nearly every day previously, was examined and found practically normal.

The 11th day the strychnia alone was used. His temperature was normal, pulse 72 to 86, respiration 32 to 38. He had sneezed some, bowels moved freely, slept most of the time and when awake was inclined to talk constantly and at random.

The 12th day his respiration fell below 30, his pulse was normal, he was taking nourishment freely, his bowels were acting readily, but he was still full of vagaries and towards midnight was quite delirious.

The 13th day his pulse, respiration and temperature were normal. No medicine was given except a little calomel towards evening to act upon his bowels. A large quantity of nourishment was taken. There was some sneezing and he was again quietly delirious towards midnight. The night was a restless one.

The 14th day he was rational at times and when awake was inclined to be quiet.

Sat up in bed most of the afternoon and passed a good night.

The 15th day he was given elixir of iron, quinine and strychnia as a tonic, and passed a good day, gradually becoming more and more rational but very forgetful from time to time and not sure of his whereabouts.

The 16th day had a good night. He was quite rational during the afternoon with a tendency to talk at random towards night.

The 17th day, passed a quiet night and was somewhat troubled with sneezing. Had solid food, which he enjoyed, stated that he never was able to eat beef when he was taking morphine and the fact that he was now able to eat a beefsteak he considered evidence that he was free of morphine. Talked rationally most of the time and denied an inclination for morphine, for which he never made any request.

The 18th day he passed a good night. Stools were normal in color, they had previously been slightly clay colored on a milk diet. He ate solid food, was quite rational most of the time. The urine was normal and the blood showed 4,800,000 red cells, 7,200 white cells and 65 per cent haemoglobin.

The 19th day he took a drive for an hour and a half and had a very comfortable time. Denies even the slightest craving for morphine. Smoked a cigar, and was rational the entire day.

The 20th day the patient left the hospital for a visit with friends in the city.

He lost during the treatment 18½ pounds in weight and looked a little pale, but said that he felt perfectly well aside from a feeling of weakness.

The subsequent course of the case has left nothing to be desired. Sexual power, which had been absent for years, promptly returned, a feeling of strength, buoyancy and mental capacity was immediately established and he went back to his professional work which he has carried on with satisfaction, and promptly picked up the weight that had been lost.

On February 20th he wrote, "I am per-

fectly well; am growing quite fleshy, and can say positively that I have not suffered any from the time you started treatment to the present time, a great contrast as compared with the horror and misery which I suffered before in attempts to break the habit."

This convalescence continues in May, 1900.

The following case, which I saw in consultation with a brother practitioner after the patient had been under treatment for a number of days, indicates very positively that the bromide treatment of morphine addiction is not without danger.

Owing to misunderstanding of directions in this case, however, an extraordinary amount of bromide was given within the first few days, and while as far as the morphine craving and the general condition of the patient was concerned, it gave rise to immediate decided benefit, an old nephritis developed into an acute one and the patient finally died of uremia.

He was a physician, about 40 years of age, who for several years had taken morphine, whisky, cocaine and various other stimulants and sedatives, in combination or singly. He was laboring under unfortunate professional and social conditions, in part the result of his habits.

Treatment commenced March 13, 1900, at which time the urine showed a little albumen but no casts. He also had an old antral abscess on the left side, which had been opened through the jaw, providing excellent drainage.

Commencing at noon the patient had 120 grains of bromide every hour until midnight, and then at intervals of every one to two hours for the second day until 7 a. m., the third day. During the 43 hours he received 7 ounces and 3 drams. As already indicated, the medicine was administered by misunderstanding, for a considerable period after it should have been discontinued. In addition he had a little strychnia, a little digitalis and once 20 grains of chloral. The pronounced tremor, restlessness, general apprehensiveness and nervousness subsided altogether during

this time and he expressed himself as being better than he had been for a year.

Following the discontinuance of the drug he slept most of the time but could be awakened to take nourishment and took water and fluids freely. The bowels moved actively under sulphate of magnesium, the temperature remained normal, the pulse averaged about 110, the respiration once went up to 40.

On the 4th day the condition remained about as before except that he was growing decidedly restless, still taking nourishment freely, and the strychnia was continued. At 8 p. m., he had a sub-normal temperature of 97.4, albumen was still shown by the urine.

On the 5th day he was extremely restless and delirious, the bowels moving somewhat frequently, coughing and sneezing. Temperature showed a sub-normal tendency. Granular casts appeared in the urine in addition to the albumen. The antrum was washed out repeatedly.

On the 6th day he was more or less comatose and towards evening the temperature commenced to rise, reaching 102° at 8 p. m. Small doses of morphine, one-eighth of a grain, with atropia and strychnia were given at 4 hour intervals, and oxygen was administered on account of the slight tendency to cyanosis. His respiration in the evening had reached 50 a minute, the pulse being 112.

On the 7th day the temperature steadily rose, being 104° at 9 a. m., 105° at 10 p. m., and 106° at midnight. Oxygen was given every hour for ten minutes and the respiratory and cardiac stimulants as before. The bowels moved frequently and involuntarily. There was a great deal of muscular twitching but the patient could still be roused, though promptly lapsing into unconsciousness.

On the 8th day the temperature subsided steadily during the day, being 102.8° at 8 p. m., and 102° at midnight. Pilocarpine, subcutaneous infusion of normal saline solution and enemata seemed to have acted favorably in reducing the temperature. The respiration varied between 68

and 36, falling with the temperature, the pulse going down from 140 to 112.

On the 9th day the temperature gradually rose again and the evidence of uremia was more pronounced. The urine was full of albumen and granular casts. The bowels were acted upon freely.

On the 10th day the temperature ranged from 103.8° to 104.8°. Ice cap to the head, strychnia, subcutaneous transfusion, magnesium citrate and general cardiac stimulants were given. The urine only amounted to 10 ounces this day and was as before in regard to casts and albumen. The patient was continuously unconscious.

On the 11th day he received 60 ounces of water and 38 ounces of milk, but passed only 13 ounces of urine. The temperature vacillated between 103.8° and 106.4°, the pulse between 112 and 120, respiration from 40 to 70.

On the 12th day the temperature gradually ascended to a fatal termination at noon, no urine having been passed for a number of hours.

In this case what might have been a successful result as far as the bromide treatment was concerned, terminated fatally from nephritis. Whether the bromide contributed to this, it is difficult to affirm though supposably it may have done so.

The method of administration which has gradually developed as the result of the experience of Macleod and my own observation, may be formulated something as follows: The drug should only be given in the day time. One hundred and twenty grains of sodium bromide in a half tumbler of water, every two hours, until an ounce is given in the first day. The second day a smaller amount is given in the same way, and this may be sufficient, or it may be necessary to continue the doses in the same way on the third day. Macleod says the safe rule is to cease the administration of the bromide after 24 hours when drowsiness is so profound that the patient cannot be roused, or when aroused is incoherent. If the sleep continues or becomes deeper, no more bromide will be needed. It is to be remembered that the bromide acts in

a cumulative manner. After the second or third day, when the bromide is withdrawn the drowsiness, in some cases actual coma, tends distinctly to deepen for 48 hours so that the fully developed sleep presents a rather alarming condition to anyone not familiar with it. For two or three days there is difficulty in feeding the patient and swallowing is sometimes impossible so that rectal alimentation is required.

During this treatment there is apparently a tendency to aspiration pneumonia, so that feeding by the mouth becomes doubly dangerous. Any septic condition in the pharynx or in the antra communicating with the mouth should contraindicate the treatment. The poisonous effect of the bromide falls apparently upon the respiratory and cardiac centers, so that weak heart or impaired pulmonary conditions would furnish reasons against the method. From the case of nephritis that I have reported, terminating fatally, it is strongly suggested that bromide of sodium in large quantities acts harmfully upon the kidneys, if diseased, and therefore any degree of nephritis should be a contraindication to this kind of treatment.

Three deaths occurring in 12 cases, although in each instance attributable only remotely to the bromide, and occurring where the bromide had been used in extraordinary doses, doses that can no longer be advised, show that the plan of treatment is very far from being simple and without danger.

However, as compared with the difficulties of the ordinary methods that are pursued in correcting addiction to morphine, it seems to me to be of very definite value in well selected cases, and in such cases I should not hesitate, under appropriate conditions to employ it. By appropriate conditions is meant, hospital equipment, trained nurses and a competent resident physician.

DISCUSSION.

DR. RICHARD DEWEY, Wauwatosa, Wisconsin: I have been very much interested in the paper of Dr. Church, for the reason that any method of treatment which furnishes a prospect of relief or of cure of these most unpromising

cases of drug habit should be accepted by us. So far as we can judge at the present time in reference to the results, they are as good as can be expected from any treatment. Cases of drug habit are very unpromising from any point of view. The treatment outlined by Dr. Church is well worthy of trial. Of course, we need a much larger number of cases and a longer duration of complete abstinence to establish conclusions as to the percentage of recoveries. But it is certainly one of the methods that should be recommended and tried. I am reminded in the doctor's account of the treatment of epilepsy by producing similar profound constitutional effects with opium by the administration of large doses of this drug for short periods. The results are similar. At first, several promising results were reported, but long experience and observation proved that nothing extraordinary had been discovered.

DR. J. W. PETTIT, Ottawa: The practical value of this paper turns upon the permanency of the cure. It is the experience of physicians that by various methods we can succeed in withdrawing the opium, but the common experience of the profession is like that of my own, that there is no permanency of cure, as a rule. I would like to ask the author of the paper as to the permanency of the cure, and what he regards as the time limit, if he has fixed it?

DR. E. J. BROWN, Decatur: Any remedy or treatment that will relieve an unfortunate person from the drug habit for a month or six weeks is a permanent cure, so far as the remedy is concerned. If the patient persists in going back to his habit, I do not believe there is any remedy that will cure him, nor can we hope to have a remedy taken that will forever relieve a man from relapsing into the drug habit.

I want to depart a little from the bromide treatment to relate a case that occurred in my own practice. I had a patient, one in my own family, addicted to the use of morphine for a great many years. It is due to the medical profession that I should mention this case. I saw in some New York journal an article advocating the use of phosphate of codeine. Of course, I had tried everything possible, but not as persistently as I ought to have done. Everybody discouraged me. I gave the patient a good deal of phosphate of codeine, and cut down the doses of morphine as rapidly as I could to the least possible limit. After reducing the quantity of morphine to the lowest possible amount, I gave enormous doses of phosphate of codeine. The whole treatment did not last more than about ten days, and there were only two nights during this treatment that the patient lost an hour's sleep. She had no suffering, no pain, and had lost no more sleep than she had at any other period during the six or seven years that she was taking morphine. After getting her thoroughly under the influence of phosphate of codeine hypodermically, I rapidly reduced the codeine until I gave absolutely nothing. About the ninth or tenth day I gave her a hypodermic injection of water, and she said to me, "what is the use of giving me that, it is nothing but water." I closed up the hypoder-

mic syringe and the morphine piston forever. In this case I effected a permanent cure. The patient has regained health, and is well today.

DR. J. N. BLACK, Clayton: I was much interested in Dr. Church's article. If there is any remedy, whether it be the one he suggests, or other remedy, that will not only cure the desire, but give a man the will power, that stability of character and purpose whereby he will not touch the drug in the future, it will be one of the grandest things in the whole vocabulary of medicine.

I would like to ask the doctor what his experience has been in regard to the building up of the man's manhood.

DR. J. F. PERCY, Galesburg: I have had no experience with the treatment outlined by Dr. Church, but during the Keeley cure craze which spread over the country some years ago, I was impressed with the fact of the enormous quantities of strychnia that they were able to give their patients. It occurred to me that it might be of use in a case that I then had under treatment for the morphine habit. I got the consent of the man to go to the hospital with the promise that I would give him something that I thought would take away his appetite for morphine. He was then consuming on an average of sixty grains a day of this drug. He told me that he would not take any of the morphine to the hospital with him, but that he would simply trust me to keep him from suffering. However I knew that he had a sixty-grain bottle in his pocket when he entered, and I told the nurse in charge to watch, to see if he would take it to bed with him. He secreted it under the mattress. I began the treatment with the thirtieth of a grain dose of strychnia every two hours hypodermically, and rapidly ran up, so that within forty-eight hours he was taking one-eighth of a grain of strychnia hypodermically every two hours. About the third day he handed his bottle of morphine to the nurse, and said he did not think he could take it even if she were to coax him to do so. I kept up this treatment for a number of days, giving him the large dose and then gradually withdrawing it. The nurses during the progress of the treatment were running around with their motherly medicas under their arms studying the symptoms of strychnia poisoning. This man developed none of those symptoms, and gradually improved physically and mentally and in every way seemed to be cured. He is now in Colorado and the last time I saw him he told me with an open pupil that he had not taken any morphine since that time. Somehow I had the feeling that he was lying to me.

DR. O. J. ROSKOTEN, Peoria: Drug addiction is so prevalent in this country that any phase of the subject must be extremely interesting to us, and any advance we may make in its elucidation with a view to effecting cures should be warmly appreciated.

In studying the action of remedies with which to combat the opium habit, we should have some working theory. It seems to me that the use of any narcotic so stamps and impresses the protoplasm of the nerve cells and the tis-

sues in general, that that protoplasm is like a baby whose milk supply is deranged. It becomes uncomfortable. If this deranged action of the protoplasm can be brought back to the former state, I should think such a treatment as that which has been outlined would give more promise of success than to replace one narcotic by another. For example, we may treat a case of psoriasis for a number of years without noticeable improvement, but let a severe acute sickness take place, and through its influence on the cell-protoplasm the psoriasis may be cured in a short time. A number of other affections can sometimes be cured in the same manner, such as sarcoma by an attack of erysipelas. It is well-known that cases of functional insanity that are not dependent upon organic changes may be accidentally cured. Let us suppose that a person has become insane by a great conflagration; he may go on in that condition for years, until another conflagration jars back the nervous system to its previous condition, and that cures the case. As to the McLeod treatment of the opium habit by massive doses of the bromides. It does not jar back the protoplasm to its previous condition, but it annuls protoplasmic action. When action is resumed it may be more natural. In some respects the treatment is, therefore, similar in its effects to the more powerful influences mentioned.

Another question which comes up is this: How long will it take before the nerve protoplasm regains its former vigor? I assume it will require a period necessary for the entire renewal of the cells of the body. If this treatment can be applied for two or three months at intervals until the faulty metabolism of the cells has been gradually corrected, each generation of cells approaching more nearly the normal action than the one preceding it, then we can speak of a radical cure, but not before.

DR. CHURCH, in closing the discussion, said: I consider my paper as a preliminary report only. It would be premature to draw any definite conclusions from the small experience at hand. The great advantage of the treatment consists in the absolute subordination of the patient by the use of the bromide. When an individual has taken morphine for a number of months or years every cell of his organism, not only of the nervous apparatus but of the secretory and even of the muscular systems is under the domination of the drug. Its sudden, or even its gradual, withdrawal creates an enormous disturbance and every atom of his being cries aloud for the usual restraining influence of morphine. Under the bromide management we tide him over this period of physical craving. He has no pain, insomnia, fears, nervousness and all the host of symptoms which under ordinary circumstances drive him back to morphine which he knows will give him relief and comfort.

There is no difficulty in tapering off morphine patients, whatever may be their daily dose it may be cut in two and each succeeding day reduced fifty per cent but the struggle comes with the final fractional grain and it is at this point that failure usually results. With the bromide treatment the morphine is eradicated from the system while the patient is

asleep and he neither feels the pangs of his physical suffering nor is he able to interfere with his management. When he comes to himself the morphine habit is a thing of the past and his cellular apparatus, in the widest sense of the word, has regained its poise. The first case I reported has now been four months without morphine and recently he wrote me that he is perfectly well. His wife, who is a trained nurse, wrote me independently to the same effect.

As far as the results of this treatment are concerned, or the results of any treatment, it is impossible to fix a period when a man is cured in the absolute sense of the word. Any habit may be re-established, but when a man is entirely without craving and has for a period of weeks been without a dose of morphine, I look upon him as a practical cure. His case then is in his own hands, and of course if subjected to the same influences under which the habit was originally established he is likely to relapse.

I know nothing of the bromide treatment in relation to alcoholism. McLeod reports one case, to which I have referred.

Strychnia is a good remedy in the management of morphine cases and I believe should be associated with the bromide in the plan suggested for the purpose of sustaining the heart's action, and if one chooses combined with atropia for the support of the respiratory centers.

In spite of the apparent danger of the treatment I believe that under proper conditions, which means trained nurses, hospital facilities and a conscientious, very capable resident physician, the treatment may be undertaken with propriety and the prospect of excellent results.

EVERYDAY HEADACHES.*

BY HUGH T. PATRICK, M. D., CHICAGO.

Professor of Neurology in the Chicago Policlinic; Professor of Clinical Neurology, Northwestern University Medical School, etc.

Of the many unpleasant incidents to which human flesh is heir few never cause headache. No complaint which brings patient to physician requires for its complete understanding a wider range of accurate knowledge or larger measure of diagnostic acumen than does this same symptom, headache, and for its relief none needs a wiser adaptation of means to ends. Indeed, I have known a long series of excellent general practitioners and skillful specialists to be led humiliated captives by one petty ache in the head.

Obviously, a twenty-minute paper cannot be a treatise on headache with all its

*Read at the Fiftieth Annual Meeting of the Illinois State Medical Society, Springfield, May 16, 1900.

confusing intricacies; my present aim is to present for your discussion a few practical considerations on two of those cephalalgias which daily come to the doctor, be he internalist or dermatologist, gynecologist, laryngologist, ophthalmologist, proctologist or family physician.

Everyday headaches may be considered to be those of:

1. Infection and toxemia (fever, Bright's disease, constipation, etc.).
2. Neurasthenia.
3. Migraine.
4. Eye strain.
5. Anemia.

Classes one, four and five are tolerably well understood; complications aside, diagnosis and treatment are relatively simple. A careful clinical examination, to which every patient is entitled, will nearly always reveal the cause, and removal of the cause cures the headache.

The head pains of migraine and neurasthenia seem to share the contempt born of familiarity. Every member of this society is repeatedly called upon to treat, or at least to diagnose these two diseases, and yet how few really know much about them or even make a conscientious effort at knowledge of their peculiarities.

Headache of Neurasthenia.—To use a Hibernianism, the most striking peculiarity of a neurasthenia pain in the head is that it is no pain at all. The patient would probably feel this paradoxical statement to be a personal affront or would at least term it a characteristic medical absurdity. Nevertheless it holds good. However bitterly the victim may complain of his head, however truly and constantly he may suffer, the fact remains that careful inquiry will nearly always show the headache to be not a hurt, but a distress or discomfort. Be it at once understood that this does not minimize the affliction, for in the same breath with which the patient acknowledges that it is not exactly a pain, he will earnestly and honestly aver that he would ten times rather have a regular pain. What he has is a sense of pressure or constriction or expansion; a feeling of heaviness, of

lightness, of fullness or emptiness; a sensation as of a foreign body within the cranium or as if there were a vacuous cavity which needed filling. The foreign body complained of may appear to be liquid or solid, loose or fixed, and the conviction of its presence be so complete that the patient demands operation for its removal. A frequent complaint is of a feeling that there is some material hindrance to mental effort; an intense appreciation of some obstruction to brain action. Sometimes this is described as a veil, screen or cloud that darkens and retards all intellectual activity, or the plaint is simply of a dull, deep-seated frontal, occipital or temporal something which the sufferer is unable to define with nicety.

Altogether too frequently one hears about a pressure at (or on) "the base of the brain," a glamouring expression which emanated, I regret to say, from the medical profession and which, notwithstanding its utter absurdity, still lingers in the nomenclature of our submerged fifth.

In my experience a geometrical pain means neurasthenia or something allied to it. By geometrical pains I mean those in points, lines, squares, circular areas, parallelograms, triangles, etc. But here again, it is to be remarked that a geometrical pain is rarely a veritable pain, but rather a pressure, or a heat, or a coldness or a drawing, or some other dolorous paresthesia.

Notably peculiar is the negative attribute of neurasthenic headache that no matter how severe it may be, it allows the sufferer to sleep. As a matter of course the subject of neurasthenia may sleep insufficiently and sleep poorly, but it is not pain in the head that keeps him awake. Whenever a headache is so intense as of itself to prevent sleep, some cause besides neurasthenia is at work. Naturally, a neurasthenic may have such a headache in addition to his legitimate perquisite.

Not very unusually a neurasthenic discomfort is identical in kind and location with the distress of asthenopia. The patient suffers from intense weariness of the eyes; with a dull ache felt behind or over

them; with a sense of bulging or tenseness of the bulbs or of pressure in the sockets, perhaps accompanied by superficial burning; but although this distress is induced or greatly intensified by reading, glasses give no relief,—or at least an amelioration so transient as to allow the conclusion that the distress is of purely neurasthenic origin, possibly with the addition of a psychic element.

More than any other headache, except the hysterical one, is that of neurasthenia amenable to diversion. Often-times this fact is apparent to friends when not to the patient, but the sufferer himself is apt to notice it and to be puzzled by it, and its apparent inconsistency with real disease may cause him to accuse himself of hysteria or "imagination." Unfortunately, it has been known to mislead the practitioner of medicine as well; he cannot give credence or even serious consideration to a headache which disappears before the mild excitement of social intercourse or the pre-occupation of absorbing business, to reappear on the first opportunity of undisturbed self-contemplation. But such are the traits of many a neurasthenic headache.

With the exception of such transient relief as may be obtained by alleviating medicine or diversion, the headache of neurasthenia tends to be constant or nearly so. Patients who are "always conscious that they have a head," are "never free from headache," "have not a moment's peace," "have had a headache for three years," etc., are nearly always neurasthenics, and this continuousness separates their headache sharply from migraine and neuralgia. He who has had a headache for three months is pretty sure to be suffering from neurasthenia, or from grave organic disease.

The only proper treatment of neurasthenic headaches is treatment of the neurasthenia. Simply alleviation of the symptom to the neglect of the causal condition is to be roundly condemned. The relief so obtained is incomplete, transitory and only makes the case worse afterwards. In

the rational handling of such a case the cephalic distress is to be practically ignored, with the assurance that when the neurasthenia is cured the head trouble will have been banished. For many reasons, however, it may be good policy to administer palliative treatment until there is time for more radical measures to become effective: to put in a temporary prop—a prop to hold the confidence as well as the comfort of the patient—until a permanent support can be built up. For this purpose bromide of potassium or sodium is ordinarily the best drug, but enough must be given to be effective. I have no patience with the routine prescribers of five-grain doses of bromide. In the absence of idiosyncrasy, I would as readily join our little-pills brethren and give the tenth dilution of bryonia or pulsatilla. Twenty to forty grains t. i. d. is about the right amount and although, chemically, strychnia is incompatible with the bromides and, physiologically, is supposed to be antagonistic, I often give both drugs, I know with good effect.* Ordinarily they are not combined in the same mixture as the strychnia is precipitated.

The radical treatment of neurasthenia is a large, a very large subject and cannot be considered here. Some suggestions may be found in the paper I read before this Society** two years ago, but a common-sense, thoughtful consideration of the nature of the disease with careful study of each individual case, will generally supply all necessary indications. Rest, proper food properly given, systematically graduated exercise, mental discipline, out-door life, adequate sleep, baths—in short, the very best obtainable mental and physical hygiene, must be the foundation of all treatment.

Headache of Migraine.—Of all the common nervous diseases which are currently misunderstood, little understood or not understood at all, migraine easily leads the van. Even in this day and generation,

*As a matter of fact, in their primary and most important action they are not antagonists at all.

**Remarks on the treatment of Neurasthenia. Transactions Illinois State Medical Society, 1898; or, Medicine, March, 1899.

years after the classic work of Liveing (1873), and notwithstanding the later labors of Charcot, Weir Mitchell, Sinkler, Mobius and a host of others, it seems necessary to affirm, reaffirm and reiterate the statement that migraine is exceedingly frequent, and that it is not neuralgia, gastric headache, bilious headache, or nervous prostration headache; that it is not a reflex pain from nasal disease or ocular anomalies; that it is neither the headache of intestinal absorption nor simply uric acid poisoning,—the much touted assumptious assertions of Haig to the contrary notwithstanding. It is as distinct from neuralgia as is typhoid fever from malaria, although the same patient may have neuralgia and migraine. As I have already hinted and as I should like to emphasize, migraine is not the cephalalgia of neurasthenia and brain fag. Least of all it is a reflex neurosis from the pelvis,—the far-fetched cry of a tortured uterus or the ventriloquistic wail of that gigantic myth of would-be gynecologists, the ever feared, oft predicated and never seen *bete noir*, "ovarian irritation."

But if migraine is none of these, what is it? Well, as in the case of love or monistic philosophy, it is easier to say what it is not than to tell what it is; like hysteria or Presbyterianism, it is more easily described than defined. As nearly as is any functional disease, it is a distinct pathological entity, the specific result of causes not yet known, but aggravated by manifold unwholesome agents, indeed by any influence that tends to depreciate the general health and lessen the resistance of the nervous structures involved.

The most important etiological factor, at least far and away the most constant one, is heredity. This particular headache descends from parent to child, generation after generation with greater frequency and more persistency than any other disease, not even excepting tuberculosis,—and this regardless of bad stomachs, poor eyes, sluggish bowels, rheumatism, gout, crooked septae, tipped uteri and sclerotic ovaries. In an analysis of fifty consecutive cases,

my friend, Dr. Samuel J. Walker,* found evidence of more or less direct heredity in about 95 per cent. This, then is the first characteristic of migraine, viz: heredity.

Quite in harmony with the fact of its inheritance and almost pathognomonic of the affection are its precocious inception and long continuance. Scores of patients between forty and fifty have told me that they had suffered from headaches ever since they could remember. Even children and young people in their teens may be unable to recollect a time when they were not subject to attacks of cephalalgia. For many women the disease disappears at about the time of the menopause and a fair proportion of male sufferers get rid of the plague at about the age of sixty, but many of the bad cases continue unabated into old age and half a lifetime is a low average of its duration.

Unlike neurasthenic headache, the pain of migraine is severe; a distinct and unmistakable hurt, and in the majority of instances disables the patient during its continuance.

Almost peculiar to this particular headache is its more or less irregular periodicity; its appearance in distinct attacks, separated by entirely free intervals. When the disease has existed for years the intervals may become so short that the sufferer has almost continuous headache, or the attacks may be so frequent that the patient, worn out with pain and loss of sleep, acquires a constant neurasthenic headache in addition to his migraine, but these are exceptional cases and in the earlier years the rule of irregular periodicity always holds good.

In strong contrast to typical neuralgia, the pain of migraine is not intermittent or even strikingly paroxysmal. It may throb somewhat but for the most part is a steady, intense pain. The subjects generally describe it as deep-seated,—never as distinctly superficial,—although after an at-

*Journal of the American Medical Association, Sept. 30, 1899, p. 839.

tack the scalp may be tender, especially to slight sensory stimuli, such as combing the hair.

For the first ten years after the beginning of a migraine, the attacks rarely last more than twelve hours and they are pretty distinctly diurnal; that is, they begin in the morning or during the day, or may even begin in the night and last through the day, but when the patient goes to bed he goes to sleep and the next morning finds that his headache has disappeared.

I say his headache, not because migraine has a predilection for men—indeed it more frequently attacks women—but because every person's migraine has something idiosyncratic about it; it is always the same old thing and the patient always speaks of it as "my headache," "my neuralgia," or "my bilious attacks," etc., according to his own ideas as to what it should be called, but always with the understanding that it is peculiarly his. If, perchance, from some cause or other he has a different headache he knows it at once for an alien, while at every approach of a migrainous attack he instantly recognizes the individuality of his life-long enemy.

I tried to make unequivocal the assertion that migraine is neither simply a manifestation of uric acid intoxication or intestinal absorption, nor pain begotten of disease in the nose, stomach or uterus; that it is not the cephalic distress of nervous prostration; not the voice of anemia, not the signal of organic disease; but be it distinctly understood that the attacks may be made more frequent and severe, may even be clearly determined by any such disturbing influences. A man who is accustomed to have a migrainous seizure about once a month may have one every week if he indulge in undue dissipation or be subjected to great mental strain, loss of sleep, the debilitation of general disease or the deleterious effects of poisons.

Negatively, it is to be said that migrainous headache need not be accompanied by nausea or vomiting; that although sometimes called hemicrania the pain need not

be one-sided and that although often associated with disturbances of general sensation or special senses, such accompaniments are not uniform. Furthermore, it may be well to state that ophthalmic migraine, that is, migraine accompanied by scintillating scotoma, central scotoma hemianopia and the like, is no more caused by ocular anomalies than are migrainous headaches untended by visual symptoms.

In my own experience migraine is most frequently miscalled neuralgia, gastric headache and nervous headache. To be sure, it really is a nervous headache but generally thereby is meant a head pain simply as part of general nervousness or caused by some mental or emotional perturbation, whereas such relation in migraine is exceptional. Considering the many distinctive traits of this headache and its extreme commonness, the frequent failure to recognize it would appear almost humorous were it not humiliating. Therefore, before saying a word or two as to treatment, I venture to catalogue the most prominent of its distinguishing features; features that make confusion of this affection with any other practically impossible.

1. Heredity, more often on the mother's side.
 2. Inception, generally under 15, nearly always under 20.
 3. Attacks at first two or three times a year to once a month; later, once in two months to two per week.
 4. Duration of attack, six to thirty-six hours.
 5. Freedom from pain in intervals.
 6. Continuance of affection through many years.
 7. Pain severe; nausea or vomiting rather frequent.
 8. Prodromes not infrequent and nearly always the same for each individual.
 9. Accompaniments of visual, sensory or speech symptoms almost pathognomonic, but not always present.
 10. During continuance does not admit of sleep.
- The rational treatment of migraine may

be inferred in large measure from what has been said regarding its nature and etiology. Scrupulous attention to the general health, the best of hygiene, especially hygiene of the nervous system, and careful removal of all local abnormalities which may act as general depletants or as fretters of the nervous system, must be the first care. Possibly ocular anomalies, especially in the young, deserve separate mention. Deplorable though it be, the fact remains that the majority of physicians do not make complete examinations, hence cannot fully treat the patient. This one is very thoughtful as regards eyes, another is intent upon so-called auto-intoxication, a third scrutinizes the nasal cavities, still another gives a test breakfast and examines stomach contents with minute care, while the need is for a broad visual field and good judgment. Be it never forgotten that the mere presence of structural anomaly in any part of the body is absolutely innocuous if it does not impair function, and that local disease or abnormality seldom determines attacks of migraine by so-called reflex action, but operates by decreasing vitality and hence increasing irritability and instability. The septum sawyer, the muscle cutter, the stomach washer, the rectum manipulator and the castrator, will each have his modicum of success but his failures will be as legion over against the sporadic good results.

Treatment based on the uric acid theory is a relative failure as far as I have been able to learn by experience and from knowledge of the results of others. Improper diet, imperfect metabolism and insufficient excretion are all pernicious and always to be reckoned with, but the course advised by Haig—great reduction of proteids ingested, with administration of salicylates, iodide of mercury, etc.,—has been singularly ineffective in my hands and after eliminating faulty diagnoses and the personal equation, has seemed to me to be not much more satisfactory in the hands of my colleagues. Even Haig, exalted as he is with his gospel of salvation, does not claim to have cured his own case.

In contrast to the discouraging record of operative interference and of treatment based on the various theories of local and toxic etiology, I have neither a new therapy to offer nor brilliant results to record. I have yet to hear of the radical cure of a bad case of typical migraine. As already stated, women not infrequently lose the affliction after the menopause and men after the age of sixty. In the course of clinical histories of nervous patients it is not very exceptional to hear of spontaneous cessation of the disease or of long periods of quiescence, but an unmistakable deliberate cure must be a great rarity. Considerable amelioration may often be attained; in a few cases so pronounced as to amount to practical cure.

In the medicinal treatment my own preference is for *cannabis indica*, on purely empirical grounds. The reasoning of Seguin,* who attributed its good effects to "a sedative and even a paralyzing influence on the third cerebral nerve and its attached muscles," seems to me fallacious and to have quite insufficient basis in fact. Success with this remedy will depend largely upon the recognition of three variant factors: namely, quality of preparations of the drug, difference in individual susceptibility and substitution by druggists. Some preparations put upon the market by reputable manufacturing firms are worthless. One person may take twenty times as much of the drug as others. I have known three drops of the fluid extract to produce distinct symptoms in a large and vigorous young man, while from the same bottle sixty drops failed to produce the slightest effect in either of two ladies. Physiological effects were reached in different persons by all doses between these extremes. In my experience the fluid extract made by Parke, Davis & Co. has proved to be the most satisfactory. Doubtless there are others just as good, but I do not happen to have found them. The initial dose is three or four drops after each meal and the amount is to be rather rapidly increased

*New York Medical Journal, April 5, 1890.

until the limit is reached for the case in hand; that is, until distinct physiological effects appear, when the dose is to be diminished just within the limit and held there indefinitely. Thus given cannabis indica will materially alleviate the great preponderance of cases. As an example of an unusually good result I present the following case:

Miss A. H., 42 years old, a wage-earner, was sent to me on February 22, 1898. She knew very little of her parents but remembered that her mother had suffered with severe headaches. Her own trouble had begun nine years before as an occasional pain over the right eye, which would last all day and disappear with sleep. At first, the attacks occurred only three or four times a year, but gradually they became more frequent and severe and after four years began to be attended with vomiting. From this time on the disease constituted a serious disability as the attacks attained a frequency of once a week or once in two weeks, each attack continuing from two to four days and during its continuance rendering the patient bedfast. Without exception the pain was felt in or behind and above the right eye, and doubtless it was this rather unusual and constant location that misled previous medical advisers to consider the case one of neuralgia. The infraorbital nerve had been operated on by one physician and just before the patient came to me, a distinguished surgeon, on the advice of an eminent physician, had proposed to extirpate the Gasserian ganglion. She was given fluid extract of cannabis indica and a saline laxative, the latter being soon changed for a pill of aloes, podophyllin, belladonna and nux vomica on purpose to exclude anything which might act by relieving a possible uric acid diathesis. No change was made in diet or other habits. Two days after beginning treatment she had a "premonition" of an attack in the form of a sensation of quivering or twitching about the right eye, and this was repeated two weeks later. From that time to July 20, 1900, when last seen, a period

of two years and five months, she had just one severe attack of migraine. She had, however, five milder attacks each apparently caused by failure to take the medicine. After two of these a month apart, I discovered that the druggist was supplying a preparation other than that prescribed; it was made by a prominent eastern house, but was practically inert. On the other occasions she carelessly omitted the medicine for several weeks at a time. When last seen she had had no sign of headache for six months. She has not reached the menopause.

In several instances I have found even a good preparation of the drug to be entirely without effect upon the disease and I must confess that in these cases I have not been much more successful with other means, although sometimes a course of bromide, as for epilepsy, or of nitroglycerine or of the two combined has been of distinct assistance. Mendel recommends a mixture of sodium salicylate, sodium bromide and aconitine, and I have found it useful in a few cases when given regularly for a long time.

TREATMENT OF THE SAC IN VERY LARGE INGUINAL HERNIÆ.*

BY M. L. HARRIS, M. D.

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It is the intention in this short paper to briefly discuss one point in the technic of the operation for very large inguinal herniæ. By the term "very large" herniæ is meant those in size from a child's head to an adult's head and larger, and the point to be discussed is the management of the sac.

These very large herniæ present so many points for consideration not present in the ordinary small herniæ, and the dangers and difficulties of the operation are so great, that they may be said to form a class of

*Read at the Fiftieth Annual Meeting of the Illinois State Medical Society, Springfield, May 16, 1900.

themselves. In a large percentage of the cases the loops of intestine are adherent to each other, or together with the omentum, adherent to the wall of the sac so that the mass is irreducible. The herniæ may be so large and contain so much of the contents of the abdominal cavity that this cavity becomes contracted and will retain with difficulty the hernial contents even when reducible. Many of the cases occur in very large, fleshy individuals, and such masses of fat become deposited in the herniated omentum, that the entire omentum must frequently be removed before the hernia can be returned. This often renders the operation long and tedious, and, as is well known, such fleshy people bear prolonged operations badly. These are some of the difficulties encountered in operating these very large herniæ, but, as already stated, the particular point we wish to consider at this time is the treatment of the sac.

In the ordinary small hernia the sac is now almost universally removed, and usually without much trouble, but in the particular class under consideration the case is quite different. Here the sac is very large, its walls often much thickened and its connection with the hypertrophied and greatly distended scrotal tissue more intimate. Its vascular supply is more profuse and the vessels of the cord are often spread out and so intimately incorporated in the wall as to be separated only with great difficulty and danger of laceration. After separating such a sac in the attempt to remove it much oozing follows, often with the production of a large hematoma. The circulation of the scrotal tissues may be so interfered with as to lead to sloughing, and the vessels of the cord may be so lacerated or become the seat of thromboses which may produce sloughing of the testicle. As illustrating this last mentioned danger, I will mention the following case: Mr. H., age 54, German farmer. About 15 years ago, hernia first appeared in left inguinal region. Its growth in size was quite rapid. It was reducible at first, but for eight years past it could not be returned. It measured 64 cms. in circumference and 41 cms. in

length, reaching nearly to the knees. After a week's preparation he was operated April 26, 1897. The sac was found to contain nearly all the small intestine, the transverse colon, and omentum. The omentum was very fatty and adherent to the bottom of the sac. Most of the omentum was removed, and the contents of the sac returned to the abdominal cavity. The sac was then separated and removed with considerable difficulty. In doing this a piece of the vas deferens was accidentally removed with the sac. The rings were closed after the method of Bassini. All went well until the third day, when the scrotum was found very much swollen, and the temperature reached 101 degrees. On the fourth day the temperature was 103 degrees, and the scrotum more swollen and quite dark in color. A longitudinal incision was at once made through the scrotal tissues, which were found greatly infiltrated with coagulated blood. The vessels of the cord were thrombosed, the testicle much swollen and black from hemorrhagic infiltration, and in a sloughing condition. It was removed together with all blood-clots, and the cavity packed with a hot boric acid dressing. Rapid recovery ensued without further incident. He was heard from six months later in good condition without recurrence. Kramer (Arch. f. Klin. Chir., 50-188) in an elaborate statistical article on the results of operations on large herniæ calls attention to the great danger of sloughing of the testicle, as well as of the scrotal tissues, after removing the sac in these very large cases, and advises that that portion of the sac contained within the scrotum be left undisturbed, no attempt being made to remove it. He cites a number of cases in which orchitis, sloughing of the testicle, and sloughing of the scrotum followed removal of the sac.

The first case in which I allowed the sac to remain was that of Mr. W., age 30 years, operated in June, 1890. He was a large, fleshy man, weighing 250 pounds. He had had his hernia, which was a right inguinal one, for eight years, and it was irreducible.

It was one of the largest herniæ on record, measuring 81 cms. in circumference and 40 cms. in length. After two weeks' rest in bed with low diet and saline laxatives combined with compression of the immense mass with a Martins rubber bandage, we succeeded in reducing the hernia to about one-fourth its size. At the operation, after opening the sac, freeing numerous adhesions and removing a large mass of fat-laden omentum, we succeeded in reducing the contents, which comprised practically all of the small intestine and much of the colon, including the cecum. The sac was then cut across and the proximal opening closed with catgut. The abdominal opening through which the fist could be passed, was now closed by two layers of catgut sutures. It was the intention to remove the sac as the last part of the operation, but, at this point, the patient began acting very badly with the anesthetic and it became necessary to hastily terminate the operation. The sac was, therefore, left untouched and the wound closed. The patient recovered without accident. During the first week considerable effusion occurred in the sac and it became quite large. It was thought it would be necessary to remove it at a subsequent operation, but at the end of a month all fluid had disappeared, and the parts had become so contracted and small in size that further interference was unnecessary.

A third case was that of Mr. P., age 40 years. He was quite fleshy and weighed 275 pounds. He had had his right inguinal hernia since the age of 25, and, although he had worn a truss, it had constantly enlarged until, at the time he had applied for relief, it was larger than an adult head, and measured 55 to 60 cms. in circumference. A large ulcer was present, due to the pressure of the truss. The hernia was not entirely reducible, although nearly so. After a week's preparatory treatment, he was operated September 28, 1899. Considerable omentum was removed, and the hernial contents returned without much difficulty. The abdominal opening was closed by the longitudinal wire

sutured "en etage," and the scrotal portion of the sac left undisturbed. Some swelling occurred during the first few days from effusion into the sac. On the 8th day considerable elevation of the temperature occurred, and, fearing the sac had become septic, it was opened. Nothing but bloody serum escaped, and no pus was found. The sac was drained, and a moist dressing applied. In a few hours more the cause of the elevation of the temperature was discovered in a consolidation of the lower lobe of the right lung. The temperature reached 104 degrees; respiration 52, and pulse 108. On the 12th day convalescence was established and the case progressed to recovery without further interruption. The sac and scrotum diminished markedly in size and gave no further trouble.

Of the three cases here reported, one from whom the sac was removed had thrombosis, hemorrhagic infiltration and sloughing of the testicle; the other two, in which the sac was left, had no subsequent trouble from it. In leaving such large sacs the first impression is that a cyst or hydrocele would develop, but such was not the case, either in my own cases or in those reported by Kramer. It seems advisable, therefore, in these very large inguinal hernia, not to attempt the removal of the scrotal portion of the sac, but to leave it undisturbed. It may be drained for the first few days from its lowest point, if thought desirable. The advantages of this method of treating the sac are:

1st. The saving of much time during the operation.

2nd. Avoidance of the danger of sloughing of the testicle and scrotal tissues, and

3rd. Much less danger of sepsis.

MARRIAGES.

Dr. Richard F. Gilmore and Miss Permelia E. Wade, both of Pana, Nov. 14.

Dr. R. C. Danforth and Miss Monta McLaughlin, both of Pana, Nov. 14.

The Illinois Medical Journal

PUBLISHED MONTHLY.

Official Organ of the Illinois State Medical Society.

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All remittances for subscriptions should be sent to E. J. Brown, Treasurer, Decatur, Ill.

The Society does not assume responsibility for any statements or opinions published in this journal.

Entered at the Postoffice at Springfield, Ill., as second-class matter.

Springfield, Ill., December, 1900.

EFFICIENT OFFICIALS SHOULD BE RETAINED.

With the incoming of the new State administration there will probably be some changes in the medical appointments in the gift of the executive.

Governor Yates has publicly stated that he has made no pledges and is therefore untrammelled by any political pulls. Under this gratifying condition he will undoubtedly be guided in his appointments by the qualifications and administrative ability of aspirants for his favor.

We trust that he will be slow in making changes and allow to remain those who have won the respect and confidence of the profession. He will undoubtedly be governed in a great measure by the recommendations of the Judicial Council which represents the State Society, and the profession can feel confident that it will be represented by men of honor, professional ability and administrative integrity. W.

IMPORTANT ANNOUNCEMENT.

This month we begin the publication of the names and addresses of all members of local societies in the State. The first installment includes all the societies in the

city of Chicago, with a very few exceptions. The list has been compiled by the chairman of Legislative Committee, C. E. Black, who wishes it distinctly understood that he is not responsible for any mistakes or omissions of names and addresses. He has relied on the Secretary of each society to give correct data. The names of 1,087 persons are given and of these but 187 are affiliated with the State Society. A copy of the Journal will be mailed to each person on the list and we desire to earnestly solicit the application of the 900 colleagues who still remain outside the State organization. In the thirty days which remain before the assembling of the legislature, we should have an increase from Chicago alone of 400 members. This can be accomplished by the active efforts of our Chicago friends. Brethren, the names of the eligibles are before you, and we ask you to now apply your powers of persuasion. A long pull, a strong pull and a pull altogether will give us the coveted 1,200 members by the beginning of the next century. K.

THE FENGER BANQUET.

Never in the annals of the medical profession of the great northwest has there been assembled such a number of representative men as came together to do honor to Christian Fenger on the third of November, the 60th anniversary of his birth. All things conspired to make it a memorable occasion. The guest was worthy, modest and appreciative, the tributes read from men and societies not able to be present were numerous and touching, the speeches were for the most part suited to the occasion. One other valuable feature of the affair was the exhibition of the strength of our professional organizations. Given a worthy object and a standard about which

they might rally the medical societies came together on this occasion as one man. We congratulate Christian Fenger as a man of science. We congratulate the committee which managed so skillfully this tribute to him, but above all we congratulate the one hundred and fifty societies represented, because an opportunity was given to exhibit that *esprit de corps* which, now that it is known to exist, promises so much for the future.

K.

CHANGE DATE OF MEETING.

At the recent meeting called by the President, of members of the Illinois State Medical Society, held in Chicago, the question arose as to the feasibility of changing the time of meeting of the State Society from the Spring to the Fall of the year. It was suggested by Dr. D. W. Graham, who at one time fathered such a movement, that the members of the State Society express their opinion by a postal card vote upon the subject.

In 1896 Dr. Graham, at the Ottawa meeting, gave notice that he would bring up this question for action at the following meeting, but was met by so much opposition that he did not consider it worth while to have the question submitted to a vote.

If the members desire to adopt the suggestion herein made of a postal card vote, the Secretary is willing to receive the same and announce the result.

to a resolution adopted at the last meeting of the State Society. "It was decided to send a complete list of the membership as all are eligible." This action and any other similar to it will operate to defeat the objects entertained by the State Society and should not be repeated. It is to be remembered that during the discussion by the State Society the fact was brought out that the cause of poor appointments was the apathy and non-interest by the profession at large to advise or influence the executive as to who would best fill these positions, not only in an executive way, but also would be a credit to the profession, and that therefore the doctor who had the best political pull was the one selected, not for his efficiency in a medical way, but because he had the best political backing.

During the discussions spoken of it was contended that the best backing of a physician of Illinois should be that of his professional brothers, and while it is true in a general sense that all physicians may be eligible to a State appointment, yet we know there are some who are better fitted than others for such positions, and when the request is made in good faith, it should be acted upon in the same kindly spirit.

It is earnestly desired that the profession in general will appreciate the good that will result from proper action and that the intent of the State Society, as expressed, will be complied with.

W.

DEFEAT THE OBJECT OF THE STATE SOCIETY.

We wish to call attention to the action of the Pike County Medical Society at its recent meeting. The Judicial Council requested the names and qualifications of the more eligible member or members for State appointments from that county, which communication was made pursuant

EXECUTIVE COMMITTEE MEETING.

The Executive Committee met in session at the office of Dr. M. L. Harris, Chicago, November 3d. There were present all members and by invitation society officers, Drs. Corr, Lewis and Brown.

After some discussion it was moved by Norbury that there shall be ample material presented in the various sections that will

guarantee a full three days session of the next annual meeting.

Moved by Norbury that Section 3 shall take precedence over Sections 1 and 2, and that it be given the first half day. Carried.

Moved by Center that Section 1 shall have Tuesday P. M. and all of Wednesday A. M., and Section 2 the balance of the session. Carried.

It was moved and carried that Section 3 be limited to six papers, Section 1 and 2 to twenty-five each.

Moved by Lewis that on Tuesday evening the President's address and that of Section 3 shall be given. Carried.

Moved and carried that the Committee of Arrangements be instructed not to prepare any entertainment that will take the members out of the city or away from the sessions.

Moved by Harris that the price per plate at the annual dinner shall not exceed \$1.00, and that the hour of said dinner shall be 7 P. M. Carried.

The National Hotel, Peoria, will be the headquarters. Adjourned.

MEETING FOR SUGGESTIONS.

Pursuant to a call made by President Kreider, there was a meeting held at the Auditorium Hotel, Nov. 3, at 5 P. M., of various members of the State Society. There were about thirty present. The subject for discussion was read in the call by the President.

1. To print in the Illinois State Medical Journal a list of all members of city, county and district societies, plainly designating those who are members of the State Society.

2. To make the President of the local societies or, in his absence or inability to attend, the Vice President the representa-

tive of the society on the Nominating Committee. The officer holding this position to be in every case a member of the State Society in good standing. Each society must show evidence of actual meetings during the previous year.

3. To consider the propriety of furnishing to every member of a local society a copy of the Illinois State Medical Journal on condition that he pay through the Secretary, the sum of \$1.00. This not constituting him a member of the State Society, but putting him in touch with the actions and objects of the State body; the payment of an additional \$2.00 entitling him to membership with all its rights and privileges.

4. To have an assembly of officers from all societies in the State and committees of the State Medical Society in Chicago or Springfield six months before the annual meeting to consider how the influence and membership of the Society can be increased.

5. To start means for assisting professional men legally, socially and materially.

The discussions upon these various subjects brought out the following expressions:

Dr. Hollister: There should be some individuals in each local society that would make a special effort to solicit members. They should be assisted by the officers of the State Society in every possible way. Special committees ought to be appointed of energetic men who should be assisted by having extra copies of the State Journal.

Dr. Percy: Told of his experience as a member of the Judicial Council. He saw more hope through the committees appointed of local societies. Expressed his great surprise at some replies the Judicial Council received in the matter of listing

eligibles to be submitted to the Governor. The larger number of the societies had promised to select the best men in their society. The smaller societies in the larger cities referred action to the Central Society and desired to act through it.

Dr. Firebaugh: Spoke of the renewed activity and interest shown in the meetings of the societies in the southern part of the State. He thought the reason that they did not join the State Society is, that they devote too much of their time to the local societies.

Dr. Graham: Thought it were better if the Society would meet more often in Chicago. He dilated considerably upon the general lethargy of the profession, as well as the multiplicity of smaller societies. Believed that some of the lesser societies should be abolished.

Dr. Black: Spoke of the actions of the Legislative Committee and replies received to the circular letters issued. Great interest has been shown by the replies received. It has been generally suggested that the State Society should not only be of a purely scientific body, but must broaden out in politics.

Dr. Grinstead: Thinks that greater interest is taken in the southern part of the State in society work. Does not think that we have too many local societies; that possibly the county and district societies meet too often and thereby get a surfeit of society work. District societies should not meet more than once a year and that in the Fall, and no meeting in the Spring.

Dr. C. C. Carter: Believes in hard personal work of each and every member of the State Society. Younger members of the profession don't appreciate the advantages that are realized by holding membership in societies. Older members should

make an effort to explain the same to them and by that means influence them to membership.

Dr. Palmer: Most of the physicians in my county (Bureau) are already members of the State Society, and was proud of the fact.

Dr. Denslow Lewis: Never before have the efforts of the State Society been so successful as in the last half year. He thought the work done has been wise, judicious and practical. He spoke of the Journal as being the greatest medium ever adopted, and the rapid growth of the Society at the present time attests its value in that direction. He thought that the membership in the State Society in Chicago would be largely increased in the near future.

Dr. Corr: Do as we are doing. Continue in the same line of work. Hard, personal endeavor and work should be made by all and every one of us.

Dr. Will: Not fully prepared to discuss. So many elements to combat, etc. Believes that doctors generally do not know the value of being a member. Some have an idea that the Society is made up of specialists, or that only certain ones control it. Others are opposed to any kind of medical legislation. Cannot suggest a remedy. Possibly if each individual member will exert himself then perhaps an interest might be established.

Dr. True: Believes that personal work will do it. He promised to do his share of it in his territory.

Dr. Raab: Each individual should constitute himself a committee of the whole and make it a personal matter to insist that every physician with whom he comes in contact who is eligible, that he become a member.

Dr. Cotton: Is enthusiastically with the movement to increase the membership

of the State Society and thereby widen its sphere of activity and increase its influence. Never before saw such enthusiasm shown as recently while visiting societies throughout the State. He can see everywhere evidence of the work of the committees of the State Society. It is strongly apparent in the increased interest shown in recent meetings. He believes we should push the organization of county societies; also along lines of fraternal organization. The Journal is a very powerful engine in promoting the objects of the Society. Every county, city and district society should be in affiliation to the State Society. In the matter of fees, the membership fee might be paid to the central organization by and through the local societies.

Dr. Brown (E. J.): Thinks that the Journal has created a new epoch in State medicine. Recently visited several societies and gained many members.

Dr. Hunt: Believes in beginning a crusade of education among our legislators. The legislators at present seem to think that the laws desired by the doctors were for their own benefit and not the peoples.

Correspondence.

STAND BY THE COMMITTEE.

Editor Journal:

Another session of the State Legislature is near at hand and it behooves the profession to be on the alert, not only to shape new legislation, but to protect that already secured. Until recently the quackish interests have had things about their own way. The "knock out" they received two and four years ago at the hands of the legitimate profession has stimulated them to organize their forces for an active assault upon our lines this winter. Unless the profession presents a more solid front than in the past, the disreputables will succeed.

The Legislative Committee are doing heroic work, but unless aided by the great body of the profession, their efforts can at best only be partially successful. We must stand by the committee.

Two serious obstacles stand in the way of proper organization. First, apathy, which is due to that lack of responsibility for the general welfare of the profession which unfortunately prevails among so many of the better class of medical men. Those who should be leaders in promoting and giving direction to movements for the advancement of the profession are too busy looking after their personal affairs. These men gladly avail themselves of the valuable assistance of medical societies to promote their own interests, but do not seem to feel under any obligations to the profession as a whole. Their motto seems to be, "The profession for the individual practitioner," but not "The individual practitioner for the profession."

The second great obstacle is that other class who are willing to aid a committee in any proposed measure, provided they can dictate what shall be done and how. Their views are generally narrow from lack of sufficient data and their suggestions too often prompted by selfish motives. If satisfactory progress in medical legislation has not been made in the past, it is due primarily to those two causes.

We have a legislative committee made up of gentlemen of high standing and good judgment. They are making it their business to determine what is best to do and how to do it. It will be perfectly safe to follow their leadership. Suggestions from the profession are not only proper, but will greatly aid the committee in their work, but the final decision as to the advisability of any given procedure should not only be left entirely to the Legislative Committee, but they should be heartily supported. If this were done, the results would surprise even the most sanguine. Let the watch-word be "Stand by the Committee."

In this connection permit me to call attention to another important matter. The

term of Dr. J. A. Egan as Secretary of the State Board of Health will soon expire. His services have proven so valuable in that position that it would be a misfortune to have him displaced. His experience during two sessions of the legislature will be particularly valuable this winter. Dr. Egan is the right man for the place. Let us keep him there.

J. W. Pettit.

Ottawa, Ill.

Since the above was written, we have received the following resolutions passed by the Chicago Medical Society, at a regular meeting Nov. 21, 1900.

Whereas, Dr. James A. Egan, a member of this Society, has been Secretary of the State Board of Health for the past three and one half years, and

Whereas, During this time he has performed the duties pertaining to his office promptly, faithfully and efficiently, and has aided in securing desirable legislation, and

Whereas, This promotes the physical welfare of the people of the state and enables the medical profession of the state to maintain a high standard of medical education, Therefore,

Be It Resolved, That we respectfully recommend to the Governor-Elect Richard Yates, that he re-appoint Dr. James A. Egan, Secretary of the State Board of Health.

The following resolutions were adopted by the Sangamon County Medical Society, Nov. 26, 1900.

Whereas, The term of office of Dr. J. A. Egan, the present Secretary of the Illinois State Board of Health, and a member of this Society, is about to expire, and

Whereas, Dr. Egan has proven himself to be an efficient and capable official, and has shown great zeal in the enforcement of the laws regulating the practice of medicine and all laws affecting the public health therefore, be it

Resolved, That the Sangamon County Medical Society strongly endorses Doctor

Egan and urges his re-appointment as Secretary of the State Board of Health.

Resolved, That this resolution be spread on the minutes of the Society, and that a copy be sent to the Hon. Richard Yates, Governor-Elect of Illinois, and to the Chairman of the Judicial Council of the Illinois State Medical Society.

LEGISLATIVE COMMITTEE.

A summary of replies to recent letter addressed to members of the State Society.

During the latter part of September, the Committee on Medical Legislation of the Illinois State Medical Society directed a letter to each member asking for suggestions as to the plan of work which the Committee and the Society should pursue. Much to our gratification, we received a large number of replies which indicate marked interest in the work of the State Society.

One of the first points taken up was that of re-organizing the Illinois State Medical Society on the Connecticut plan. This plan has just been adopted by New York State, and in a modified form is used by Pennsylvania, Indiana and a number of other states. Most of the replies favor the plan suggested, excepting one point, namely, the making of membership in the State Society compulsory upon membership in the local Society. Quite a number suggested that membership should be voluntary rather than compulsory. That it will be better to "allow" membership in the local society to carry membership in the State Society than to "make" it. This point will need further discussion. The majority of those replying were of the opinion that some plan of re-organization should be adopted. That the State Society is not the representative body that it should be and that we can never hope to secure the most desirable legislation until a larger number of physicians are closely banded together.

One writer voices the sentiments of many others in saying "that organization

demands that we first know the exact status of every individual in the local societies of the state. This will give us a basis of possibilities." The same writer believes that we can never enlist more than 25 per cent of the regular profession in the State Society. This would be a great improvement over present conditions, but we believe that even better can be done.

In answer to the question, "How is it that the majority of the regular practitioners in the state have not allied themselves with the State Society" there was a great variety of opinion. We will mention a few of the reasons suggested. First, "Antagonism to the code of ethics." Second: "Natural animosity, and jealousy." Third: "Many consider attendance upon the State Society as time wasted." Fourth: "Indolence." Fifth: A desire to avoid all alliances with other practitioners." Sixth: "Lack of faith in any organization." Seventh: "Distaste for servileness." Eighth: "Simple neglect." Ninth: "No systematic plan for interesting members in the State Society." Tenth: "No proper and well understood relation of local societies to the State Society." Eleventh: "That the State Society is run by a clique." Twelfth: "Diffidence to public speaking and preparing and reading papers." Thirteenth: "Many doctors consider themselves too poor to afford the luxury of belonging to the State Society."

One writer suggests that the friction existing in local societies may have done more harm than the Societies have done good. It is admitted by all that the State Society can do little without the co-operation of the local Societies and that some plan should be adopted for bringing about a closer association between them.

Regarding the organization of City, County and State Boards of Health, there was a wide difference of opinion. More than one writer believed that health problems should be left entirely to local authorities, while several who have undoubtedly given these questions much thought suggest that the State Board of

Health should have power to appoint a health officer in each county, with authority to enforce proper regulations.

As to the need of more adequate sanitary laws, especially those relating to schools, manufactories and quarantine, there was almost unanimity of opinion.

Most writers were in favor of legislation to protect against tuberculosis and other preventable diseases, but at least one gentleman of prominence does not consider tuberculosis as a legislative disease. All were agreed that we must protect against vicious legislation, especially anti-vivisection and anti-vaccination. One writer of great prominence makes the timely suggestion that in the matter of vivisection we should always make it plain to the public that individually and as a profession we are against any cruelty or unnecessary tortures to animals. He suggests that this point has been too much overlooked by the profession.

Regarding the desirability of protection from blackmailing and unjust mal-practice suits there was no difference of opinion.

The same was true of the recognition of expert testimony.

Many views were presented as to the best method of protecting the sick from quacks and Charlatans. One writer voices the sentiments of several others in saying that the only way to protect against quacks and Charlatans is to require every person professing to heal the sick without regard to methods, to complete a thorough medical course. In other words, they advocate one standard by which all physicians should be measured instead of three and one-half standards as now exists in Illinois.

From this correspondence there seems to be a growing sentiment in favor of the above view, and the time may not be far distant when every one who professes or desires to engage in healing the sick will be required to pass the same examination and that the matter of therapeutics will not be made a subject in such examinations, but will be left entirely to the future action of the applicant. Undoubtedly such

a law would appeal to the average citizen as being broad and just to all. The public as a rule want well educated doctors in every branch excepting therapeutics, many of them still believe in natural healers.

All expressed a desire for a high standard of education and many are of the opinion that there should be a board of medical examiners separate and distinct from the board of health, and not a few suggested that the members of both these boards should be nominated by the State Societies. In other words, that the State Societies should be recognized by statute as the nominating bodies for members of the board of health and board of medical examiners. Such a plan already exists in the Board of Pharmacy and several other state boards.

It is impossible for me to give all the valuable suggestions contained in these replies. They make a very interesting volume in answer to the questions proposed and will be of great assistance to the Legislative Committee in arriving at a basis for practical work. In fact the committee has already adopted the suggestion which was repeated many times in the letters, of trying to ascertain the exact status of every member of each local society in the state.

We are pleased to announce that the societies are responding very fully to our inquiries and by January we hope to present to the profession a fairly complete list of the membership of every local society in the state. This will give a basis for further work in organization.

We realize that we must act slowly until we can see more clearly which way to proceed. Laws are often clumsy and may often do more harm than good. The ideal statutes can never be passed, maintained or executed. We must always be contented with statutes which are approximately what we want.

One thing is certain, we can never secure needed legislation without organization, and to secure organization and make it broad and complete we must present the

members something more than simply attendance upon one annual meeting. The State Society must keep an accurate record of the membership of every local Society. We must assist them in their local societies. We must protect them from unjust suits. We must give them a good journal to read each month. We must show them that the only way to hold medical appointments is by activity in our medical organizations. We must demonstrate that complete organization will secure desired legislation. We should put more medical men in our legislatures and in fact we should stand ready to assist each other in any and every way. We should make provision in the future to assist the aged and infirm of our profession. If our state and local societies will give energetic attention to these things as well as to high classed scientific meetings, we will soon have a state organization second to none in the union.

We take this plan of answering the replies received to our circular letter and hope it may provoke still more valuable discussion along these lines.

We want to thank the members for their loyal support to the committee, but want it fully understood that our greatest desire is to carry out the will of the State Society.

(Signed,) Carl E. Black,
Chairman.

Jacksonville, Ill.

State Board of Health Items.

REGISTER OF PHYSICIANS OF ILLINOIS.

An Official Register of the Physicians of Illinois is now being compiled by the Secretary of the State Board of Health, and it is hoped that a copy will be in the hands of every member of the Society by January 15th.

This Register, which will be corrected up to December 31, 1900, is expected to be the most complete directory of the physicians of the state ever issued by the

Board. It will contain the names and addresses of over nine thousand physicians of the state, and the names of all licentiates of the Board whose deaths have not been reported. The physicians will be reported by counties as heretofore, but immediately preceeding the county lists there will be given an alphabetical list of the towns in the state with counties, and population, according to the census of 1900. The Register will also contain a list of the medical colleges in Illinois with names of the faculty of each, a list of pension examiners of the state, and of the licentiates of the Board serving in the Army, U. S. Volunteers and Marine Hospital Service during the civil and Spanish-American wars and at the present time. The active Medical Societies of the state will also be reported with the names and addresses of the officers of each. In addition the Register will contain a Necrological Report, showing the names of over 3,000 physicians of the state whose deaths have been reported. A complete index of over nineteen thousand physicians will be found at the end of the Register.

The State Board of Health has been engaged in the preparation of this Register during the past eighteen months. All printed matter appearing in previous reports has been ignored and a card index taken from the office records, has been made, showing the names, addresses, where known, names of institutions, date of graduation or examinations, and date of certificate of every person who has been licensed since 1877. From this card index the forthcoming Register will be prepared.

The Secretary of the Board finds much difficulty in keeping track of the change of address of licentiates and in ascertaining the facts of death. As a rule not one physician in a hundred reports his change of address. The Board therefore has to rely upon the information obtained through the medium of press clipping bureaus and the medical journals and lay press of the state; and upon the information obtained from physicians of whom inquiries are

made. In spite of these drawbacks, it is expected that this Register, so far as the physicians actually practicing in the state are concerned, will be as correct as it is possible to make a directory of physicians.

Believing that the deaths of several hundred licentiates of this Board had not been reported, the Secretary prepared and sent out to physicians who were in practice in 1880, complete lists of physicians practicing in the counties of the state during that year, and made the request that those who received the lists examine the same carefully and cross off the name of physicians known to be deceased. As a result of this, nearly one thousand deaths have been reported during the past month, none of which had been previously noted by the Board. The Secretary will follow the same mode of procedure with the Official Register of 1890 and as soon as these lists are returned, will send out to several physicians in each county for revision a complete list of practicing physicians in each county, corrected according to the records of the Board.

The Board is greatly indebted to the physicians of the state for the assistance afforded, and hopes to be able to furnish them very shortly with a Register which will be thoroughly reliable.

N. B.—Owing to great amount of labor involved in compiling the new Register, no lists of changes will be reported to the Journal for the December and January numbers.

County and District Societies.

The Carroll County Medical Society was organized November 13, at Mount Carroll. J. Haller, of Lanark, was elected president, and H. S. Metcalf, of Mt. Carroll, Secretary.

The Moultrie County Medical Society met at the Odd Fellow's Hall, Bethany, Ill., Thursday eve., Nov. 8, 1900.

A very good attendance was present despite the blustering weather and that most of the members had to drive to make the appointment. Our program was short.

Dr. J. W. Weis read a paper on "Puerperal

Convulsions." It was open for free discussion and also the experience was given by those who had had several such cases. All freely took part and the evening was mostly spent on the one subject.

Dr. E. P. Miller told us of the Fenger banquet, to which he was a delegate from this society. A grand big time was reported.

We had with us Dr. E. A. Pratt of Bethany, the oldest practitioner in this county, having practiced in this county for forty years. He is still strong and vigorous and in active practice and can relate many stories of his early practice on the Illinois prairies.

After the meeting the physicians of Bethany gave an oyster dinner and such delicacies as go with them to relieve the inner man.

Our next regular meeting will be held at Sullivan, Dec. 13th, 7:30 p. m. We invite other societies to attend.

J. W. Mayes, Secretary.

Stockton, Ill., Oct. 25, 1900.

The Jo Daviess County Medical Society met in the Woodman Hall with the President, H. T. Godfrey in the chair, and the following members present: Drs. Tyrrell, Buckman, Egan, Keller, Czibulka, Eade, Kenegy, Stafford, Hutton, Smith I. C., Smith D. G., Lewis, Sharp.

The minutes of previous meeting read and approved.

The adoption of a constitution and by-laws was next in order which was agreed upon and the same ordered to be printed.

Interesting communications were read from Drs. Kreider and Percy, in reference to the State Journal and medical legislation, after which a short recess was taken.

The regular program was then taken up. Dr. Bench the author of the paper being absent. The subject for discussion, "Inflammatory Rheumatism" was opened by Dr. Eade giving a full and interesting talk on the various treatments of the same. Drs. Sharp, Hutton, Godfrey and Buckman participated in the discussion.

At this hour (4 p. m.) the physicians of Stockton invited the society to a banquet prepared at the Great Western hotel. While the stomach was being filled up with all imaginable good things, the ear listened to sweet notes of Brown's orchestra after which a half dozen enjoyable toasts were listened to, and every one was glad that he had chosen medicine for his vocation.

At 7 p. m. the society again reassembled with the above named members and Drs. Stiver and Salter of Lena, as visitors.

The subject of obstetrical experience was taken up and after considerable talk and valuable points exchanged, the society adjourned to meet in Warren on the last Thursday of January 1901,

D. G. Smith, Secretary.

The Crawford County Medical Society met in the office of Drs. Meserve, at Robinson, Nov. 3, at 2 P. M.

Members present: T. N. Rafferty, Hayhurst,

A. G. Meserve, H. N. Rafferty, Barlow, S. D. Meserve, J. Weir, Hoskinson, Birch, Kirk and L. J. Weir.

Minutes of previous meeting were read and approved.

Dr. Birch read his paper on "Intestinal Worms." From a literary standpoint it was a gem. The subject is old, but many practical points were made in the paper and during the discussion, among them were these: That every ailment, physical or mental, in children that is supposed to result from worms, is not caused by the parasites, and that it is the duty of doctors to correct this erroneous idea that all troubles of childhood are due to worms. Cleanliness in every way and particularly in regard to food and drink received the consideration that its importance demands as a prophylactic measure. Calomel and santonin for large round worms, the same with enemata (of infusion of quassia or water alone) for small seat worms. Pumpkin seed or male fern for tape worm, with preceding preparation in all cases was the successful treatment usually employed.

The invitation of the Judicial Council of the State Society to recommend such of our members as may be considered desirable and qualified for such medical positions as may be within the power of the Governor to fill, was read and discussed; the plan in general of the State Society was approved, but the plan in particular of the Judicial Council "to form of the names recommended a list of eligibles," was objected to, it being considered that all names recommended by the local societies ought to be placed on the "list." Further consideration was postponed until next meeting.

Society adjourned to meet the second Thursday in January, 1901.

L. J. Weir, Secretary.

The Champaign County Society was called to order by Vice-President John Laughlin at 2:30 P. M. in the Burnham Hospital, Champaign, Nov. 14.

The minutes of the last regular meeting read and approved.

J. E. White moved that the Society endorse the appointment of C. B. Johnson as member of the Illinois State Board of Health, recommend his reappointment and that his name be given the judicial council of the State Society.

The following committee on nominations to the State Society was selected: J. M. Bartholow, J. E. White and J. D. Mandeville.

W. F. Burress read a paper on Laminectomy with report of a case, operated on one year previous, present and walking about with only slight spastic movements. Paper discussed by Drs. Howard, Mandeville and J. M. Lawson, of Sidney.

Paper on Mushroom Poisoning by C. B. Johnson, read by J. C. Dodds, and discussed at length by Prof. F. J. Burrill, who presented illustrations of many varieties calling the attention of the Society to the Morgani family as being poisonous, though not so described in

literature. They frequent this vicinity, have large stools with long stems, the gills are white, turning to a bronze green. After eating, in two hours distress of stomach follows, vomiting in three or four hours with relaxation, collapse, slow pulse becoming excessively weak, with collapse, profuse sweating and occasionally death; the rule is recovery, when cases are fatal death is apt to ensue in two or three days with intervening periods of collapse and revival. Age does not make non-poisonous varieties poisonous. Dr. Bartholow related the treatment of several cases recommending strychnia. Dr. Laughlin moved that a committee of two be appointed to revise by-laws and fee bill and have 500 copies printed in pamphlet form.

Members present: Prof. Burrill, Drs. Howard, Johnson, J. E. White, Bartholow, Walls, Matheny, Mandeville, Spears, Cushing, Dillon, Fullenwider, Marten, Finch, Reid and Dodds.

Visiting: Drs. J. M. Lawson, of Sidney, and F. H. Powers, of Champaign.

J. C. Dodds, Secretary.

DECATUR MEDICAL SOCIETY.

The members of the Decatur Medical Society and several guests from other cities met at the Elks' rooms Oct. 26, to hear a talk by Dr. A. Church of Chicago, that gentleman having accepted an invitation to discuss "Cerebral Hemorrhage and Thrombosis."

The speaker was introduced by Dr. H. C. Jones, president of the local society, and in making that introduction he referred to a fact which pleases all of the Decatur physicians, that after a lapse of about a dozen years the society has been reorganized and since the reorganization has held an unbroken series of meetings. The subject of the talk by Dr. Church was a practical one to the physicians and he handled it in a practical way. He spoke without notes and his agreeable style of delivery, ready and choice language, delighted all who heard him. Hemorrhage of the brain follows the rupture of a blood vessel and consequent hindrance of the the circulation. The results produced are practically the same but the treatment is exactly the reverse. In a case of hemorrhage it is the desire to lessen the pressure of blood upon the brain, and in thrombosis or stoppage of the circulation it is necessary to force the blood forward. As the symptoms following an attack in either case are so similar it is essential that the physician knows just exactly which trouble he is dealing with. Dr. Church therefore devoted some time to the symptoms by which the two troubles could be positively distinguished. In each case paralysis follows. Cerebral hemorrhage comes suddenly. The stoppage of the circulation comes gradually, may fully develop when the patient is asleep. Dr. Church told of an interesting case that had come to him for treatment. The patient was suffering from thrombosis. He was a motorman, and like all persons thus afflicted, not only lost the power of speech but when he had apparently regained his health in other respects he could not talk. He had forgotten all he ever knew about the

language, with a singular exception. He used two cuss words and in reply to all questions would swear a little. His sister discovered that while he did not recollect the words he still remembered the air of "Annie Rooney" and when she played on the piano he would hum that air. She was a school teacher and taught him other words by setting them to the music of "Annie Rooney," and from that beginning taught him to talk once more.

Following the talk of Dr. Church the physicians indulged in a smoker and it was then that there was an informal discussion on the topic of Dr. Church's address.

Among the visiting physicians were, Drs. N. M. Vance, of Bement; W. K. Hoover, of Lovington; W. P. Davidson, of LaPlace; A. P. Rocky, of Assumption; G. K. Lush, of Lake City, and W. T. Bridges, of Stonington. Drs. Rocky and Lush became members of the society.

Drs. J. E. Brown and Tyler Meriweather with Secretary J. T. Miller were appointed a committee on programme for the next meeting.

PIKE COUNTY MEDICAL SOCIETY.

At the meeting of the Pike County Medical Society held in Pittsfield, Ill., Oct. 18, 1900, the following members were present: J. H. Barber, H. T. Duffield, Samuel Peacock, G. F. Becholdt, G. U. McComas, W. F. Reynolds, R. O. Smith, G. H. Henry, F. M. Crane, L. J. Harvey, R. H. Main, Geo. A. Humpert and W. E. Shastid. Visitors: Thos. Shastid, of Pittsfield; A. C. Cotton, of Chicago; and Carl E. Black, of Jacksonville, Ill.

L. J. Harvey, President, presided.

Minutes of last meeting were read and approved.

Harvey Dunn, of Perry, and Thos. Shastid, of Pittsfield, were elected to membership.

Communication from J. F. Percy, of Galesburg, regarding sending a list of the names of the Pike County Medical Society eligible for State appointment to be sent for the use of the Governor when selecting names for offices in Illinois was read. It was decided to send a complete list of the membership as all are eligible.

After a talk by Carl E. Black, of Jacksonville, chairman of the State Committee on Medical Legislation, it was resolved by the Society that it was "the opinion of the Society that the medical societies of the State of Illinois should be re-organized on some comprehensive plan which would constitute the profession a complete and harmonious organization and which would include all county and district societies and the State Society."

Carl E. Black, of Jacksonville, read a paper on "General Peritonitis." He said in part that peritonitis begins by a localized focus of inoculation which frequently becomes general. He advised operation only when the disease was localized or when a focus of suppuration could be detected and advised against operation as a rule in general peritonitis with no evident suppurating focus.

A. C. Cotton said that the only exception to the rule as stated should be made in tuber-

cular peritonitis which is nearly always benefited by laparotomy.

Dr. Black replied by saying that tubercular peritonitis was not included in his term "General Peritonitis," and that he favored operation in tubercular peritonitis.

A. C. Cotton, of Chicago, read a paper on "Disturbed Lactation—Some of its Causes and Effects." Among the causes of disturbed lactation were mentioned anger, excitement, sexual excitement, coitis, gestation, etc. Particular attention was called to sexual intercourse and gestation as causes of disturbed lactation.

H. T. Duffield, of Pittsfield, made a practical demonstration of "Hodgen suspension splint, how to make and apply it." He demonstrated, on a subject, its superiority in fractures of the femur, showing the ease with which displacement may be reduced and kept in position, the simplicity of the apparatus and the ease which it affords the patient.

The Society gave a vote of thanks to Drs. Cotton and Black for their interesting papers.

P. W. Brown, who was to present a paper was not present.

G. H. Henry's paper was postponed until the next regular meeting.

G. H. Henry, Geo. A. Humpert and R. H. Main are to present papers at the next regular meeting, Dec. 20, 1900.

R. H. Main, Secretary.

The Sangamon County Medical Society held its regular monthly meeting Monday evening, Nov. 12, 1900. This being the annual meeting for the election of officers.

The meeting was called to order by President Kreider. In the absence of the secretary, Bartlett, Percy Taylor acted as secretary pro tem. Present: Drs. Babcock, Barker, Babb, Berry, Brayshaw, Bowcock, Buck, Dixon, Egan, Fisher, Griffith, E. E. Hagler, A. L. Hagler, M. C. Kelly, J. W. Kelly, Kreider, Munson, Nelson, I. H. Taylor, A. D. Taylor, P. L. Taylor, Brittin, Ryan, O'Hara, McElfresh, Tuttle.

Lee Hagler, O. B. Babcock and A. D. Taylor were appointed as auditing committee to report at December meeting. It was voted to give Secretary Bartlett \$10.00 for services during past year. The name of T. W. Morgan, of Lowder, was proposed for membership, and was referred to committee. It was decided to ask the board of supervisors for the use of a room in the new court house in which to hold meetings of the Society. The chair appointed A. W. Barker, H. B. Buck and J. W. Kelly to attend to this matter.

The following were elected as officers:

President—J. N. Dixon.

Vice-President—A. L. Brittin.

Secretary—B. B. Griffith.

Treasurer—Percy Taylor.

Board of Directors—Drs. Bowcock, Brayshaw and Babcock.

Dr. J. A. Wheeler was elected to honorary membership in the Society. It was decided to have a special meeting of the Society on Nov. 26, to which the druggists of the city would be

invited, the object being the discussion of several subjects of mutual interest to druggists and physicians. Several very interesting cases and pathological specimens were shown during the evening. Upon adjournment the members went to the Troy Restaurant, where the usual banquet was enjoyed by all present.

Percy Taylor, Secretary Pro Tem.

The 26th semi-annual meeting of the Southern Illinois Medical Association was called to order at 11 A. M., Nov. 15, 1900, by President W. F. Grinstead, of Cairo, Ill.

A paper by Prof. G. H. French, of the Southern Illinois Normal University, entitled "The Intestinal Parasite of Epilepsy and Some Other Diseases," called forth a great deal of discussion, and was an excellent, scientific article.

Prof. French has discovered an intestinal parasite named by him *Gastrophilus Epilepticus*, and which he believes to be the specific cause of epilepsy in a large number of cases.

H. V. Ferrill opened the discussion, followed by Drs. Gault, Knaver, Telford and Silvey.

A very hospitable invitation to visit St. Andrew's Hospital while in Murphysboro was extended the profession by Rev. K. Schauerte.

W. T. Ingram reported four applications for membership, but no other members of the board of censors being present, action was postponed.

Adjourned until 1:30 P. M., at which time the president called the meeting to order.

The paper by J. L. Wiggins, entitled "Is the Diagnosis of Appendicitis Free from Error? Is its Treatment Settled Beyond Discussion?" called forth the answer "No," especially as to the discussion which was lengthy and very animated. H. V. Ferrill again opened the discussion followed by Drs. Grinstead, Hamilton De Courcy, Davis, and closed by Dr. Wiggins. All the members felt that the paper and discussion were profitable and all were pleased with the result even though showing decided differences of opinion.

At this juncture President Grinstead appointed Drs. Lee and McRaven to act with Dr. Ingram as a board of censors.

Jas. I. Hale read a paper, "The Modern Surgical Operating Room," which was discussed by Drs. De Courcy, Wiggins, Grinstead, and closed by Dr. Hale's saying "That the greatest merit of his paper was its brevity," with which the majority of the Society did not agree.

The following new members were duly elected: Chas. E. Freeman, Murphysboro; Geo. Johnson, Pellonia; C. E. Trovillian, Metropolis; M. H. Trovillian, Round Knob; A. C. Ragsdale, Metropolis.

A. C. Corr next read a paper, "A Resume of Ophthalmology that will assist the general practitioner in a more satisfactory understanding and treatment of cases that consult him." This was a most excellent, practical paper, treating largely of conjunctivitis and kindred every day diseases. The paper was discussed by Drs. Davis, De Courcy and closed by Dr. Corr.

The association having been notified of the death of Drs. A. Wetmore and W. C. Lence, the

president appointed Drs. Hale, Sloey and Lee a committee on necrology.

Adjourned.

At 8 P. M. an entertainment was tendered the visiting fraternity which was enjoyed by all. Dr. Grinstead made an address as president of the Society, which met the approval of those present.

Chas. B. Johnson, President State Board of Health also made a most excellent address.

November 16, 1900. Association called to order by President W. T. Grinstead at 9 A. M.

A large amount of business was now transacted such as report of secretary, report of treasurer, allowing bills, acknowledgement of receipt of gavel, appointment of committee for revision of constitution and by-laws. At this time also Metropolis was selected as next meeting place, meeting to be held in May, 1901.

Dr. Dunn's paper, "Otitis Media Chronica Suppurativa," was a good and practical paper, discussed by Drs. Gault and Corr, and closed by Dr. Dunn.

The regular order of business was now suspended and the Southern Illinois Journal of Medicine and Surgery made the official organ of the Society.

J. T. McAnally read a paper, "Medical Organization," and presented the following resolutions, which were unanimously adopted:

Resolved, That it is the opinion of the Southern Illinois Medical Association that the medical societies of the State of Illinois should be re-organized on some comprehensive plan which would constitute the profession a complete and harmonious organization, which would include all county, district and the State Medical Society.

Resolved, That we believe the success that has attended fraternal organizations is in part at least due to their plan of organization, and further

Resolved, That the time has come when medical societies besides being bodies for the presentation of scientific topics must take a more active and practical interest in the material welfare of the profession as well as an active participation in all measures which are calculated to preserve the good health of the various communities in the State.

Therefore, we would respectfully ask our neighboring county and district medical societies, as well as the State Society to consider some practical plan of reorganization, and take steps to carry it into effect.

Dr. Corr next spoke on this line in reply to various inquiries made by President Grinstead, and handled the subject in a very practical manner.

Drs. De Courcy and Essick also spoke along these lines and heartily endorsed Dr. McAnally's remarks.

On motion Dr. Grinstead appointed the following committee to be known as the Committee for the Good of the Profession, and to act in conjunction with the State Medical Society:

H. L. Gault, Sparta.

J. T. McAnally, Carbondale.

A. C. Corr, E. St. Louis.

W. W. Essick presenter a paper on Burns and Scalds, which was full of practical points; discussed by Drs. Grinstead, Telford, De Courcy, Gault, and closed by Dr. Essick.

A vote of thanks was extended to the citizens and profession of Murphysboro for the entertainment accorded the visiting fraternity.

H. C. Fisher and J. C. Bristow were made honorary members on account of age.

Final adjournment was now had with the understanding however that as many as possible should be at St. Andrew's Hospital at 2 P. M.

O. B. Ormsby, Secretary.

The Military Tract Medical Association of Illinois held its sixty-first regular meeting at Kewanee, Oct. 18-19. The association convened in McClure's opera house. President J. E. Sutton, of Canton, in the chair. The report of the treasurer showed a good balance in the treasury. The committee on necrology reported the death of J. V. Harris, of Canton; Edgar Bolles, of Macomb, and Gray Taggart, of Galesburg. Drs. Will, Lewis and Coleman reported appropriate resolutions to their memory.

New members elected were: G. F. Hall, Galesburg; Arthur Parsons, Elmira; J. F. Taylor, Buda; H. H. Rogers, Cuba; H. H. Fletcher, North Henderson; J. H. Oliver, Kewanee; W. H. Cole, Kewanee; W. H. Waterous, Galva; W. Washburn, Kewanee; Shannon McGill, Victoria; O. H. Huntley, Buda; G. B. Noren, Kewanee.

The secretary reported his labors and tribulations and successes. President J. E. Sutton delivered his address on "Imperialism in Medicine." It was well received and discussed by Drs. Will, Luster and Lydston.

G. E. Luster, of Galesburg, presented a paper on "Pelvic Abscess," which was discussed by Drs. Stremmel, Dorsey and Will.

J. F. Percy, of Galesburg, presented a patient from whom a brain tumor had been recently removed. The society gave a rising vote of thanks to the mother for bringing the child before the meeting.

Hugh T. Patrick, of Chicago, gave a most interesting and instructive talk on Apoplexy. It was illustrated by crayon drawings and the practical points demonstrated in a scientific and versatile manner. It was discussed by Drs. Howell, Luster, Kerr, Will and Percy.

F. B. Dorsey, of Keokuk, presented a paper entitled "Pregnancy vs. Tumors," which was discussed by Drs. Will, Howell, Rogers and Percy.

The evening meeting at the opera house was held under the supervision of the president of the association. A large audience of citizens attested their appreciation by their presence. A musical program was rendered. This was followed by the address of the evening on "Doctors, Wise and Otherwise," by G. Frank Lydston, of Chicago, who had been invited for the purpose. His treatment of the subject proved highly entertaining as well as profitable, including, as it did, dialect readings of superior character. After the address the visiting ladies were entertained by the local committee of

ladies, in a very pleasant way, at the home of C. W. Hall. The male members of the association and their friends repaired to the Odd Fellows' Hall where a sumptuous banquet was arranged and an informal and very jolly "smoker" was enjoyed. An orchestra furnished inspiring music during the intervals of which repartee and story were rife until the "we sma'" hours.

The morning session of Oct. 19 was convened at nine o'clock, President Sutton in the chair. The first order of business was the report of the previously appointed nominating committee, as follows:

President—R. E. Lewis, of Macomb.

First Vice President—R. A. Kerr, of Peoria.

Second Vice President—G. E. Luster, of Galesburg.

Secretary-Treasurer—C. B. Horrell, of Galesburg.

Board of Censors—Henry Knappenberger, of Macomb; W. H. Cole, of Kewanee.

Committee on Necrology—O. B. Will, of Peoria.

Publication Committee—C. B. Horrell, Galesburg (ex-officio); Frank Wallace, Monmouth; and Delia M. Rice, Galesburg.

Place of next meeting—Macomb.

On motion of C. W. Hall the report was received and its recommendation concurred in.

The next in order was a paper by J. F. Percy, of Galesburg, on "Recent Surgical Work," reporting four very interesting cases: 1st, Pyloric Stenosis; 2d, Removal of Gall-bladder; 3d, Glioma of the Brain; 4th, Operation for Uterine Prolapse.

The next paper was one by O. B. Will, tersely recounting scientific evidences of "The Time to Operate."

"The Diagnosis of Surgical Diseases of the Kidneys" was the subject of the next paper, by James E. Coleman, of Canton, who detailed some personal experiences of interest.

S. C. Stremmel next read a forcible treatise on "Dysmenorrhoea."

The next paper was a valuable one on "The Topsils. Their Function, and Indications for Treatment," by Ralph C. Matheny, of Galesburg.

E. M. Sutton, of Peoria, followed with a report of a case of "Athetosis, with Excision of the Brachial Plexus."

"Post-Partum Hemorrhage" was the interesting subject of the next paper, by G. B. Noren, of Kewanee.

Frank Nance, of Chicago, presented a volunteer paper on "Indications for Removal of the Eye-Ball." He exhibited a large number of interesting and beautifully mounted specimens.

The papers of Kerr, Norbury and Harter were, in the absence of their authors, read by title and referred to the committee on publication. Several of the members whose papers properly came in the program of the first day, and who were present when the proper time came, were obliged to leave before further opportunity was presented, in consequence of unavoidable delay in convention. For the same reason much discussion was interfered with or

prevented, to the regret of those who could remain.

On motion a committee of three was authorized and appointed, to be known as the "committee for the good of the profession," was carried, and the president appointed as such body, J. F. Percy, Galesburg; E. M. Sutton, Peoria; and R. E. Lewis, Macomb.

C. W. Hall moved that any member having aspiration for any public appointment, be invited to present his name to the committee on "Good of the Profession" for possible endorsement. Carried.

On motion of Dr. Percy a rising vote of thanks was heartily given to the members of the Physicians' Club, of Kewanee, who had so successfully and completely arranged for the comfort and entertainment of their visitors during the session of the association.

R. E. Lewis, the newly elected president, was then conducted to the chair by the secretary, and pleasantly introduced by the retiring officer, J. E. Sutton. He thanked the members of the association for the honor conferred, and asked their hearty co-operation in making the next meeting, in his home city, a memorable success. He gave assurance of the united interest of profession and citizens generally, and their desire to have a pleasant memory of our visit to Macomb.

The meeting then adjourned sine die.

C. B. Horrell, Secretary.

A clinical meeting of the Chicago Neurological Society was held Nov. 1, 1900, Dr. Hugh T. Patrick, Vice President, in the chair.

Intermittent Claudication and Atypical Sciatica.—Hugh T. Patrick presented a patient with what he considered to be atypical sciatica dependent principally upon arterial disease and hence closely related to the "Claudication intermittente" of Charcot.

In this connection he briefly related the principal features of a case which he had hoped to also have present in person. The patient was a woman, sixty-six years old, who had been in fairly good health until about six months before, when she began to have trouble with the lower extremities. The legs below the knees became slightly swollen and somewhat painful, especially at night, and she was greatly annoyed by paresthesiae and muscular cramps. Within the last few weeks tingling and numbness had appeared in the last two fingers of the right hand, and she said that in cold weather the fingers turned greenish-white and seemed to be dead. In addition to the sensory symptoms, she complained of great weakness of the legs, particularly after walking a short distance, and upon examination it was found that although she started off fairly well, after walking about twenty yards the steps became small and somewhat uncertain and thereafter progression rapidly became more difficult until she was compelled to come to a full stop. The pulse was 95 and small and was not to be felt in the dorsal artery of the foot on either

side. There was slight anesthesia of the foot and the Achilles jerks were absent.

The patient presented was a man sixty-nine years old who, twenty-eight years before, had had severe sciatica, beginning on the left side, afterwards extending to the right and lasting more than four years. Twelve years ago he had a similar attack, but active treatment in the beginning limited its duration to a few weeks. The present trouble began nine years ago much as the previous attacks had done, but was less acute and almost immediately involved both sides. From the first the pain was not severe, indeed, could scarcely be described as a pain at all, but was rather a sensation of drawing or pressure with intensely disagreeable paresthesiae and intense restlessness of the legs. Although the discomfort was greater in the region just below the sciatic notch on either side, none of the ordinary signs of sciatica were present. The patient complained particularly of the fidgety feeling and paresthesiae which prevented him from getting to sleep and of the weakness and increase of the sensory symptoms caused by walking. Examination showed a senile heart with a systolic murmur, and a distinct, although not advanced, arteriosclerosis. It should be added that for some time the patient had been troubled with attacks of transient dizziness. The pulse in the dorsal artery of the foot was good and the urine normal.

Syringomyelia in a Negro.—The next patient presented was a pure negro, twenty-six years of age, who had noticed at the age of fifteen or sixteen that the right hand was not so strong as formerly. From that time the progress of the disease had been steadily forward until at the present time he gave the symptoms of a syringomyelia extending from the lumbar enlargement to the nucleus of the sixth nerve. The distribution of the sensory disturbance was of particular interest. There was practically no disturbance of the tactile sense, analgesia was limited to the right arm and right half of the body, in front from the chin to the groin, and behind from the vertex to the buttock, while thermo-anesthesia was present in this area, and also involved the left arm, the left lower extremity from the crest of the ilium down and the right lower extremity from the knee down, leaving uninvolved only the left half of the body from the clavicle to the crest of the ilium and the right thigh.

Dr. Elbert Wing reported a case of morphine habit treated by the administration of sodium bromide in very large doses. The patient was the wife of a physician, and was formerly a trained nurse. She was twenty-eight years old, in excellent health and was taking from ten to fifteen grains of morphine hypodermically daily. Her heart, lungs and kidneys were normal. There was constipation.

The treatment was commenced with two drachms of bromide of sodium given in a half glass of water every two hours through the day, until five doses, or 600 grains per diem, had been given. Through a misunderstanding the dose was exceeded twice. Direction was given

that the patient was to have morphine when she asked for it. The diet was restricted and mainly of milk.

The first day of treatment 600 grains of bromide were given. The pulse ranged from 88 to 90, temperature 98.2 to 99, and respiration 22. The second day 720 grains of bromide were given. The patient slept most of the previous night and complained upon waking, of muscular soreness. The pulse ranged between 76 and 84, temperature 98.4 to 98, and respiration from 16 to 18. A cathartic was given. Upon the third day 960 grains of bromide were given. Patient slept well the previous night, but not at all during the day until 9 P. M. Bowels moved freely. The pulse was 70 to 80, temperature 98 to 98.4, respiration 18 to 22. The interne, thinking the heart was weak, gave 1-30 grain of strychnia at 10:30 P. M. The fourth day the patient awakened at 5 A. M., having slept eight hours, and asked for morphine. One grain was given and the dose repeated at 10 A. M. During the day she slept about six hours but was easily awakened; 960 grains of bromide were given. There was burning pain in the stomach and patient did not sleep from 6 to 11 P. M. Pulse was 88 to 100, temperature 98 to 98.8, respiration 20 to 30. The fifth day was a repetition of the preceding days, save considerable cyanosis and the urine which was previously free and normal, now contained granular and hyaline casts, but no albumen. This day 600 grains of bromide were given. Toward evening the patient was delirious and restless, sneezed occasionally and had some hic-cough. Twelve grains of trional were given by mouth and two enemata of chloral hydrate, each containing 20 grains, were given, but only one retained. One-thirtieth grain of strychnia was given. On the sixth day no more bromide was given. Moist rales were heard over the lower third of the left lung and respiration grew more hurried, growing as rapid as 50 to 96. There was dullness over the lower part of the left lung. Morphia, strychnia, atropia and glonoin were used hypodermically and oxygen gas was given by inhalation every few minutes. After the development of lung symptoms, the progress of the patient was steadily downward until death on the seventh day. The urine obtained by catheter on the last day showed some albumen and granular and hyaline casts.

The apparent effects of the bromide in this case were extreme restlessness, delirium, rapid and weak pulse, rapid respiration, somnolence, cyanosis, moderately increased flow of saliva and indirectly, pneumonia, nephritis and death.

Dr. Wing gave a resume of Dr. Neil Macleod's nine cases, and two of Dr. Church's, treated by sodium bromide, the treatment being instituted for the cure of drug habits, either morphia, chloral or alcohol.

Tabulated statement of the amount of sodium bromide given—Macleod's cases:

- No. 1. 430 grains in 3 days.
- No. 2. Not stated.
- No. 3. 1980—33 drachms in 4 days.
- No. 4. 1380—23 drachms in 3 days.
- No. 5. Not stated.

No. 6. 2160—36 drachms, time not stated.
 No. 7. 960—16 drachms in 2 days.
 No. 8. 960—16 drachms in 2 days.
 No. 9. 1340—21½ drachms in 3 days. Septic poisoning for four months; temperature 105 degrees; no post mortem.

Dr. Church's cases:

No. 10. 2860—48 drachms, less 2 grains, in 5 days.

No. 11. 3530—7 ounces, 3 drachms, in 43 hours.

Case of this report:

No. 12. 3960—8 ounces, 2 drachms in 5 days.

Mortality:

Macleod's report

(1) Pneumonia.

(2) Septic.

Church's report

(3) Nephritis.

This report

(4) Pneumonia.

Four in 12 cases—33 1-3 per cent:

Amounts of bromide in the fatal cases:

Macleod's smallest, 1320 grains.

Macleod's largest, 2160 grains.

Church's, 3530 grains.

This report, 3960 grains.

Effects of the large doses of sodium bromide given:

Primary:

(1) Great restlessness and delirium.

(2) Diminished cardiac power shown:

(a) In slow pulse of some cases, and

(b) In rapid pulse in others.

(3) Cyanosis, marked and independent of pulmonary embarrassment.

(4) Increased amount of secretion in mouth and throat.

Secondary:

(1) Pneumonia, 2 cases.

(2) Nephritis, 2 cases.

(3) Septic conditions.

Dr. Macleod thinks the method without or with little danger even at home. Dr. Church thinks it may be undertaken with full hospital facilities. The cases so far reported seem to point to the following conclusions: The method is not without danger and should not be undertaken with heart, lungs or kidneys, not normal and not in septic conditions. Macleod's original dosage, viz: one ounce the first day, one ounce the second day, one-half ounce the third day, if necessary, should not be exceeded without first waiting twenty-four hours. If then resumed, it should be with great caution. In any case, very perfect care should be taken to guard against taking cold.

In the discussion which followed Dr. Church said that while the bromide treatment did cure the opium habit, it nevertheless remained a fact that 33 per cent of reported cases had proven fatal and emphasis was laid upon the fact that large doses of bromide might be dangerous. Dr. Moyer said that Dr. Bannister and himself has presented in 1879, a joint paper read before the American Neurological Society, upon Bromide Mania. It was clearly shown that small doses of bromide would cause mania in certain cases of otherwise perfectly normal in-

dividuals. Certain German observers have noted the something. Bromide is certainly capable of making most profound body disturbance. Mention was made of a patient losing fifty pounds of weight in three months, while taking moderate doses of bromide. At another time the same patient lost thirty pounds in a similar way, but regained weight after discontinuing the salt. Mr. Moyer considers the bromide treatment of the opium habit and of alcoholism as unsatisfactory and that we have better and safer means.

Dr. Lodor called attention to the fact that the dose, as given, of bromide, did not represent the amount in circuit when the bromide was being given continuously. If 400 grains be given at a dose in twenty-four hours, but one-half of said dose will have been excreted and Drs. Bill, Quincke and Ware have severally proven that in forty-eight hours after a given dosage, a sixth of the dose still remains in the circulation and traces may be found in the urine weeks after cessation in the use of the bromide. It would then be very essential to use extreme care in continuing massive dosage of bromide.

Dr. Herrick quoted Dr. W. Mitchell as authority for untoward symptoms in the administration of the bromide which symptoms may or may not disappear upon withdrawal of the drug.

Dr. Kuh maintained that the relatively smaller doses suggested by Dr. Wing and even the withdrawal of the drug for twenty-four hours, did not constitute a safe guard. A case is mentioned where even 20 grains of the bromide four time a day, had caused alarming symptoms.

Dr. Patrick related a case of alcoholism when one drachm of the bromide was given every hour until 16 drachms had been given. The symptoms then became alarming—the pulse and respiration were slow with cyanosis and incoherency. After thirty-six hours there was a gradual improvement and the treatment was successful.

Dr. Brower mentioned a case where 15 grains of bromide caused, upon several occasions, maniacal symptoms.

Dr. Wing closed the discussion with emphasis upon smaller doses of bromide and where toxic symptoms appear, the withdrawal of the drug for at least twenty-four hours, before further treatment.

Chicago Pathological Society, Nov. 12, 1900, Dr. Ludvig Hektoen, President.

Dr. D. N. Eisendrath demonstrated specimens as follows:

1. Adenoma of the liver. It was an accidental finding in an autopsy of a girl twenty-one months old, who had been under the care of Dr. I. A. Abt, in the Michael Reese Hospital from September 25, 1900, to October 12, the date of her death. Her clinical history was that of a typhoid fever with multiple gangrene and will be taken up a little more in detail in connection with the next specimen. At the autopsy we found an area about the size of a hen's egg occupying the entire upper portion of the

left lobe of the liver causing a retraction or umbilication of the capsule over it. The sections made through this mass revealed a tumor sharply demarcated from the surrounding liver tissue having a wavy outline with a slightly yellowish outer and a whitish, more fibrous inner portion. It was of firm consistency and was at first regarded as a carcinoma. Microscopically the structure was seen to be that of an adenoma. In these sections one can readily see where the tumor tissue begins and the normal parenchyma ends. There are many columns of new liver cells not arranged in the form of acini, separated from each other by trabeculae of connective tissue which seems continuous with that of Glisson's capsule. The most striking features are the large size of the cells and the drops of fat which they contain. Whether to call this tumor an adenoma or simply a nodular hyperplasia is still an open question. Ziegler believes that they are true adenomata, although he thinks that there is no sharp line to be drawn between these and a nodular hyperplasia on the one hand and an adenosarcoma on the other. Orth states that there may be a true hyperplasia of the liver parenchyma as where a large portion of a lobe has been destroyed by an abscess, syphilis or echinococcus. He has observed a distinct hyperplasia resembling an adenoma in granular atrophy and in a case of thrombosis of the hepatic vein. The same occurs in cirrhosis. The condition may be quite nodular and may be single or multiple, varying from a pea to a cherry in size. He believes that if we call such a condition an adenoma it would be better to call it a hyperplastic to distinguish it from the tubular variety. In this latter form there are columns of cells many having a distinct lumen. Both of these varieties may easily change into a carcinoma.

2. Specimens showing relation of diseases of the gall-bladder and intestines to infective cholangitis. The second specimens are from the same baby, aged twenty-one months, who entered the service of Dr. I. A. Abt, in the Michael Reese Hospital on September 25, 1900. I will give only the briefest outline as the case will be reported in full by Dr. Abt at some future time. The father was in the hospital with typhoid fever at the time of the baby's admission. The clinical course, previous history and frequently repeated Widal's tests confirmed the diagnosis of typhoid fever. Death occurred October 12, 1900. The portion of the autopsy to which special reference will be made is that of the liver and intestines. The latter showed a very marked swelling of the solitary follicles of the ileum and especially an appearance of Peyer's patches like that of the first week of typhoid in adults before ulceration has begun. The spleen, it may be stated here, was very much larger than normal, soft and pulpy. The liver was larger than in a child of this age; of a light brownish color and somewhat soft. Over the entire surface irregularly scattered there were a large number of whitish areas with a red periphery about the size of the head of a pin. On section these were seen

to be scattered uniformly through both lobes. In the left was in addition the adenoma just described. Microscopically these areas are seen to be due to a necrosis of the parenchyma adjacent to the interlobular vessels. The liver cells in these swollen, do not take the stain and show all signs of cell death. Around each bile duct near these necrotic areas there is a marked round celled infiltration. We have a typical inflammation of the bile passages (angio-cholitis) or biliary hepatitis as Ziegler calls it, with the resulting necrosis of liver cells. Cultures were made from the gall bladder, liver and skin, but only in the latter were micro-organisms found (Staphylococci). The necrosis is most typically shown in specimens stained with methylene blue or Bismarck brown. Such necrosis may be due either to stagnation of bile alone or this combined with infection. If to the latter, the micro-organisms most frequently as causal agents both clinically and in experimental investigations are the typhoid bacillus, the colon bacillus, the ordinary pus cocci and the distoma hepaticum. An excellent example of much necrosis is shown in the specimens taken from a girl eighteen years old who died of a cholæmia two days after an operation for gall stones performed by Dr. Greenfelder. In this case we found the colon bacillus in pure culture in the gall bladder. The liver shows that scarcely a bit of the parenchyma is left to take the stains.

Angiocholitis and such areas of necrosis have been produced experimentally by Neter, Homen, Roger and others with the colon bacillus. In this case of Dr. Abt's the infection must unquestionably be due to the typhoid bacillus which has been found in the gall bladder and bile ducts by Chiari and others. The subject of cholangitis and its relation to operations for gall stones as a fatal complication is of the greatest interest.

Dr. Hektoen showed two rare cardiac anomalies. 1. Congenital aortico-pulmonary communication; 2. Communication between aorta and left ventricle under the anterior aortic valve which was attached at both ends. Both occurred in new-born infants in the service of Dr. Cotton in the Presbyterian Hospital of Chicago. The case of aortico-pulmonary communication is probably the tenth recorded and the first in America. A review of the clinical course of these cases was given. The second case is the first of its kind observed. It was urged that both the anomalies resulted from developmental disturbances in the septum of the arterial bulb.

Dr. Maximilian Herzog read a paper of Dr. George A. Boye, Baldwin, Kansas, on "Sarcoma of the Pancreas with report of a New Case." The paper first gives a critical review of the literature of the subject citing seventeen cases of which there were three classified as doubtful. The case which is added to the list of previously recorded instances of sarcoma of the pancreas occurred in the practice of Dr. M. L. Harris, and was posted by Dr. Herzog. The patient was a male, forty-seven years old, with

no particular family or personal history. The tumor first gave rise to marked symptoms about a year before the exitus occurred. The urine never contained any sugar, not even after a glucose test meal. An exploratory laparotomy revealed an inoperable tumor of the pancreas. At the autopsy there was found a tumor irregularly quadri-lateral having diameters of 17, 20 and 24 centimeters. This large new growth filled the whole abdomen and had formed adhesions to neighboring organs; it had, however, nowhere broken into neighboring organs, nor had it given rise to metastasia. The microscopic examination of the neoplasm shows it to consist of large spindle cells taking their origin from the adventitious coat of vessels. Large tracts of the tumor show marked retrograde, degenerative changes and there are cystic cavities in the new growths. No normal pancreatic tissue could be found. The kidneys showed parenchymatous changes; the spleen chronic splenitis; the liver slight cirrhotic changes.

DISCUSSION.

Dr. Hektoen referred to a case reported by him in Vol. II of the Society's transactions, and to a second case of small round celled sarcoma of the pancreas, weighing 3,000 grammes observed by him.

Dr. M. L. Harris said that in the case reported in the paper no sugar was present in the urine, nor any other signs of a disturbance of the pancreatic function.

Dr. J. B. Herrick suggested the possibility of the tumor cells having an action similar to normal pancreas cells.

Dr. Herzog, in closing the discussion, in answer to a question of Dr. Herrick said: The question of Dr. Herrick with reference to the absence of glycosuria and the pancreatic ferments is a very interesting one. I myself entertain a definite theory concerning the pancreatic ferments. I believe that the pancreas furnishes a ferment which splits the sugar and forms from it alcohol and CO₂. The alcohol again in "statu nascendi" is changed by processes of oxidation into H₂O and CO₂. I am not in a position to prove this hypothesis. On examining the tumor we took pieces from various places. Nowhere could any normal pancreatic tissue be found. These negative findings do not prove much since there might be hid normal pancreatic tissue somewhere in this very large tumor which of course nobody could think to entirely cut up into serial sections.

Dr. Leo Loeb demonstrated specimens as follows:

1. Carcinoma of sebaceous glands of a rat. The tumor had grown in a few months to the size of almost half the head of the rat. It was ulcerating. Grew again to its original size inside of a few weeks after partial removal.

Microscopically one sees enormously large sebaceous glands, branching out into different directions. At some places the skin covers the glands. The new-formed tissue takes after some time the appearance of sebaceous glands.

At other places one sees deep in the connective tissue more or less changed, isolated sebaceous glands. They may form alveoli of spindle-shaped cells. Near the normal skin the ordinary sebaceous glands show epithelial processes, that is, perhaps beginning carcinomatous alveoli near them, but it may be a regenerative growth. That demonstrates (a) direct outgrowth of glands as the first change in carcinoma; (b) anaplasia of tumor cells is not a primary factor underlying carcinomatous change.

2. A case of lymphosarcomatosis in a sheep. That is probably the first case of lymphosarcomatosis reported in an animal. There were many non-hemorrhagic nodules of different size beneath the skin and the fascia. There were tumors in the thyroid gland, in the kidney and in the heart muscle. The reticular network was best seen in the skin tumors. At the margin of the advancing lymph cells between the tubules of the kidney no reticulum was present. At other places small spindle-shaped cells were found among the lymph cells. The latter showed many mitoses. In the thyroid many casts, partially lined with epithelium, were separated by lymphoid tissue. At some places the lymph cells broke through the epithelial layer.

3. Mitoses and cell divisions in different stages in eggs of guinea pigs' ovaries. Such observations have been made by Henneguy and Jancsik. A large number of cells may be derived from one egg. One single cell situated in a mass of cells which originated by cleavage of one egg may show three or perhaps more nuclei. Nuclear division may therefore precede cell division in rapidity. Atresic changes in the follicle take place at the same time. Large cells are made up; each one may be made up of as many as twenty of the degenerating small follicular epithelial cells. It could not yet with certainty be made out if these phagocytic cells are the deepest follicular cells or the connective tissue cells of the theca interna. The latter can probably change in this way. Later on the connective tissue cells grow into the degenerating hyaline-looking remnants of the egg, and may form foreign body giant cells.

4. Specimen of a sixteen pound tumor of the horn of the uterus of a sow. There were three or four blood cysts in the tumor, which was pale and encapsulated. Metastases in the sublumbar lymph glands which were about six times larger than normal. The uterine cavity was preserved. No sign of present or past pregnancy.

Microscopically one saw on some places well-preserved glandular structures from which continuous and branching rows of cells originated, which were surrounded by a fibromyxomatous stroma. The large vesicular nuclei of these rows of cells multiplied so rapidly that the appearance of giant cells was established. One nucleus overlapped the other, no cell limits being visible. This cell multiplication took place by mitosis. Cells in mitosis showed cell limits. At some places these rows of cells resumed the appearance of glands.

Besides there were present rows of small mononuclear (sometimes polynuclear) cells of different sizes, also eosinophilic cells, with and without granulations. These cells were perhaps emigrated from the lymph and blood vessels. The larger ones of them show beginning fragmentation of their nuclei. Besides, there are present giant cells of the myeloplax type with large fragmented nuclei. The tumor represents an adeno-carcinoma with an uncommon kind of cell multiplication, which is very extensive, without forming carcinomatous alveoli. Also the large size of such a tumor with the regular arrangement of new-formed connective tissue, and adeno-carcinomatous tissue is uncommon.

George H. Weaver, Secretary.

BRAINARD DISTRICT MEDICAL SOCIETY.

The society met in Jacksonville, in the rooms of the Morgan County Medical Society, Thursday, Oct. 25, 1900. President Lowrie presided. Minutes of previous meeting were read and approved.

Dr. Hurst, chairman of the Committee on Good of the Profession, reported that there had been delay in completing his committee and consequently no action had been taken. Dr. A. G. Servoss of Havana has consented to serve. (Later the committee was completed by the addition of Dr. S. E. Munson of Springfield.)

A letter from Dr. Percy of the State Society was read by the secretary, urging the local societies to interest themselves in medico-political appointments and present to the Secretary of the State Society a list of eligibles in their membership. Dr. Adams stated that the local societies at Jacksonville had directed their secretaries to send such lists. No action was taken by the society, and further discussion on this line was postponed till later in the day in order to secure the views of a larger number.

Dr. A. L. Adams presented a carefully studied and classified list of the causes of blindness in the institution for the blind at Jacksonville. An appalling proportion were shown to be from preventable causes, including specific disease in the eyes of infants and sympathetic ophthalmia.

DISCUSSION

Dr. Hurst: Does the writer, in his consideration of gonorrheal ophthalmia regard it as a trumatism in its relation to sympathetic ophthalmia? I have seen cases arise from this cause and recall one case where the eye unaffected by gonorrhea was only saved by the removal of the affected eye.

Dr. I. Newcomer: Physicians sometimes fail to try to relieve cases which are easily within the scope of their skill because they have not been taught in college to attend to these cases. They dismiss them without care or a hasty recommendation to consult a specialist. If there is no specialist near, cases are thus neglected till they become serious or incurable.

Dr. Adams: Any classification of such troubles must be arbitrary, both because in many cases the history is not perfectly definite and in others it admits of two equally prob-

able interpretations. The wide variation in the period elapsing between the primary injury and the development of sympathetic ophthalmia is interesting, tho a large per cent. develop within the first two years.

A brief period remaining before the dinner hour was occupied in informal discussion on the topic of placenta previa, the essayist being absent.

Dr. I. Newcomer: In discussing a case the question had arisen as to advisability of using an anesthetic to facilitate turning and in one case he had delivered without the anesthetic, but believes that the chances for the child would have been improved by its use, and on further reflection on the subject can see no good reason for withholding the anesthetic any more than in other cases of turning. The case had had a probable diagnosis at four months and hemorrhage had appeared at six months, which had been met by keeping the woman in bed with the foot of the bed raised till the eighth month had arrived, when he was called to take charge of the case, and succeeded by prompt action in saving the mother but lost the child.

Dr. Hurst: It seldom happens that pregnancy with placenta previa will advance to a late stage without hemorrhage, but even if hemorrhage occurs a positive diagnosis is not often easy. Every effort should be made to come to a positive decision and as soon as that is had no delay should be allowed. If dilatation is sufficient, deliver at once; if not, tampon firmly, watch most carefully and deliver as soon as possible. In the knee-chest position it may be possible in this as in other conditions to turn without an anesthetic, as this position leads to relaxation of uterine contraction.

Dr. Manness: In cases of central implantation Dr. Hurst is certainly correct. In lateral implantation, if such a diagnosis can be made positive, delay in delivery might be allowed. When hemorrhages occur during pregnancy we always think of the possibility of placenta previa. An exploration is so hazardous that the diagnosis must often be held in abeyance. In central implantation is positively recognized the only rational course is to empty the womb at once.

Dr. Hurst: Of course it is needful to wait for a positive diagnosis; but when that is made there is not only the risk from hemorrhage to urge to immediate action but there is great danger of sepsis. The symptoms are often misleading. Saw a case where a discharge like normal menstruation occurred every four weeks throughout the pregnancy. No harm resulted. Ergot was given as a uterine tonic every four weeks, but did not check the discharge.

Dr. Lowrie: I have now under observation a woman at the seventh month of pregnancy in whom a flow, at times in excess of her normal menses occurred regularly, up to the fifth month so that I denied that she could be pregnant until I could discover motion of the child. I then prescribed ergot and viburnum since which there have been no return of the hemorrhages.

Dr. Norbury described a case of tuberculosis of the wrist joint. The history showed a duration of five months. It was originally treated as a sprain. Patient's mother died of tuberculosis and he has tuberculosis in his left lung. Rest was advised and the injection of iodoform emulsion was considered. The case was sent to Dr. Murphy of Chicago for advice and he suggested the injection of a 2 per cent emulsion of formaline. This was used and the member put at rest. The apparent deformity is much improved and there is no suffering. Phelps, of New York, discussed such conditions at the meeting at Atlantic City. He doesn't believe in the injection with emulsions. Had found iodoform in substance in the joint years after its use. He lays open the joint, washes it out with strong carbolic acid and one minute later, with absolute alcohol. He finds three such treatments suffice to control the inflammation. He then closes the wound, immobilizes the joint and in the case of hip disease even, allows the patients to be about. He thinks the carbolic acid has a special effect through its union with the albumen of the tissues. If the inflammation continues in the case reported, shall open and wash it in this way. The carbolic acid is also being used by Phelps in cases of erysipelas where he paints the affected area, following this by absolute alcohol and with such success that the cases are allowed to remain in the surgical wards and no contagion follows.

Dr. Rowe: I saw numerous cases of the use of iodoform emulsion under Senn, but never a case cured or greatly benefited. In primary joint cases the only treatment worthy of consideration is radically surgical. Dissect out the diseased tissue, disinfect thoroughly and do this repeatedly till all diseased tissues are removed. There is certainly merit in the carbolic acid treatment but the knife, even the saw, if necessary, is the best.

A visiting M. D. suggested that cataphoric treatment with formaldehyde is very promising. Mechanical applications fail to reach every part. Static electricity will penetrate every fiber. The method is too new to speak as to final results, but the theory is scientific and reasonable.

Dr. Hurst: It is perfectly safe to use carbolic acid full strength. Glycerine will check its action as well as alcohol. Iodoform is an alternative, not a disinfectant. If you want to use it, use it in ether instead of in oil.

Dr. I. Newcomer: Cases of slight injuries in patients with a tuberculous tendency should be carefully watched and affected joints put at rest, even by plaster, if need be. So treated many would recover without developing tubercle. After it has developed the knife and the curette are the best medicine and should be applied till every particle of diseased tissue is removed.

Dr. Adams: The pure carbolic acid is one of the best remedies in certain corneal troubles. In corneal ulcer, after curetting, it may be applied with a stick and the cornea bathed afterward with a saturated solution of boric acid.

Dr. Rowe: The best treatment for suppurat-

ing glands is to cut them out. Chemical antiseptics are not reliable and will be used less as time tries their results further.

The noon hour having arrived, Society was adjourned till 1:30 P. M.

Those present during the day were Drs. Adams, Black, Burnham, Crouch, Hairgrove, Hurst, Lowrie, Miller, Munson, I. Newcomer, Norbury, and as visitors, Drs. Clampit, Manness, Cole, Dinsmore, Truax of Chicago, Ziegler, Stacey and Warren.

On convening after dinner Dr. Hurst again presented the subject of the work of his committee, and read the following resolution, based upon that passed by the Morgan County Society at a recent meeting:

Resolved, That it is the opinion of the members of the Brainard District Medical Society that the medical societies of the State of Illinois should be reorganized on some comprehensive plan which will unite the profession and complete a harmonious organization which would include all county and district societies and the State Society.

That we believe the success which has attended fraternal organizations is in part, at least, due to their plan of organization and, further, that the time has come when medical societies besides being bodies for the presentation and discussion of scientific topics, must take a more active and practical interest in the material welfare of the profession as well as an active participation in all measures which are calculated to preserve the good health of the various communities of the State.

Therefore, we would respectfully ask our neighboring county and district societies as well as the State Society, to consider some practical plan of re-organization and to take steps to carry it into effect.

Dr. Norbury moved the adoption of the resolution. Several members spoke in discussion of the subject. It was explained that the plan at present in mind of the committee of the State Society is that under which the profession in New York has lately been re-organized, making the local society the basis of membership and having all fees paid to it, so that membership in this also involved membership in the district and State societies. On motion the discussion was closed and the original motion being put, was unanimously carried. Routine business was transacted.

Dr. Munson, for the Committee on Microscopy, reported on "Malaria." He showed under the microscope several fine slides of the plasmodium, described the points of difference between the varieties, illustrated the manner in which the intermittent type might produce a fever of an apparently different type and discussed the various approved methods of staining. He also gave suggestions as to the best time for administering quinine in cases where the period may be accurately determined.

As to the examination for the plasmodium some will succeed with one method, others with another. Whatever method one becomes familiar with, and succeeds in, is the best for him.

Dr. Norbury: As a means of differential

diagnosis the microscope is of great importance and all physicians should be familiar with it. Malaria is now known as a malady of importance beyond our former belief. In cases under treatment we may fail to find the parasite, hence it is best to examine the blood at the onset and when no quinine is being taken.

Dr. Hurst: We ought to know all about malaria. It complicates almost all cases of illness of more than a few days' duration. We sometimes find it the factor in cases with a sub-normal temperature. Can the essayist explain the occurrence of a seventh day paroxysm? A farmer, industrious, sober, sensible and advanced in years had a paroxysm every Sunday for over a year. When I first examined him his temperature was 102 degrees. Gave quinine enough to interrupt the paroxysm daily for a week, then every second or third day for a month. He had no recurrence.

The condition of the corpuscles affected seems to explain the tendency to hemorrhages. Clinical experience would indicate that there must be more than one variety of the plasmodium.

Dr. Munson: The best time to give quinine is just after segmentation, when the parasites are free in the blood. The chill takes place at this time. A few large doses then will do more good than numerous smaller doses distributed over the 24 hours. We find the more obstinate and irregular forms in persons from the south where the malarial influence is more powerful than here.

Dr. Mannes: A peculiar case had tingling and paralysis of the right side for a brief time every second day. He would fall and lose consciousness. In an hour he was all right again. Quinine stopped the difficulty.

Dr. Norbury: Dr. Brown, of Decatur, speaks of cases of infantile paralysis of this nature. Even meningitis may be simulated.

Dr. Hurst: During the Civil war, while we were lying in an intensely malarial district near Memphis, several cases of complete, periodical amaurosis occurred among the soldiers.

Dr. Munson: Evidence is accumulating that the malarial patient is dangerous to his neighbors. If a mosquito bites such a patient it may carry the germ to others. The relation of the mosquito to the disease is not yet fully determined, though it is apparent that in many cases at any rate there is some relation.

Dr. Black gave a resume of the present status of "Cocainization of the Spinal Cord," with report of a case.

The measure is still under trial and while evidence of its efficiency is sufficient the nature of its dangers is not so well understood. The necessity for perfect asepsis is evident and the possibility of an idiosyncrasy as to the use of cocaine must be kept in mind. Yet results have so far been so encouraging, the possibility of anesthesia without unconsciousness is so attractive both to the patient and the surgeon that the method will be extensively tried.

Dr. Hairgrove: It is a misfortune that the formula for this method has been presented

to the general profession. It is a measure attended with grave risks in the most skillful hands, and with the carelessness as to septic conditions only too common in the profession, we are nearly certain to have some terrible accidents. When using chloroform and similar anesthetics the administration can be stopped when untoward symptoms appear; in this method the mischief is done beyond withdrawal when the injection is made. I have seen a great number of the cases in Paris. At times there were marked constitutional symptoms, almost collapse, as well as anesthesia. Asepsis is imperative. A lack here would probably produce horrible consequences, hence the measure should not be in the hands of the general profession. Collapse sometimes follows slight application of cocaine to the nose, where it is somewhat under control.

Dr. Norbury: At the recent meeting at Asheville, N. C., this subject was discussed. The question of paramount importance is sterilization. Anderson and Moyer, of Chicago, have experimented with eucaine B, and find it preferable to cocaine since it is capable of complete and certain sterilization. Anderson had lost one case with cocaine, the patient dying during the night following the operation. The spinal fluid is such an excellent culture medium that there is great danger from this source. We have reports of grave disturbance of the circulation with severe, continuous occipital headaches.

Dr. Black: Asepsis is, of course, the great consideration in every case. Corning's method of introducing a small trocar through the skin has the advantage that it lessens the risk of carrying infection from the skin into the spinal canal as well as enables a finer needle to be used.

Dr. Crouch presented a fine specimen of brain tumor, removed post mortem from a patient at the State Insane Asylum.

The patient had several insane relatives. His trouble was supposed to have originated from the effects of sunstroke. He was extremely emotional, being unable to talk because of crying even while fair speech was yet possible to him. The tumor had encroached the back part of the left parietal lobe. It was distinctly encapsuled. The patient became blind in one eye. The diagnosis of tumor and its location was made during life.

Dr. Hairgrove: The case is of peculiar interest from the size of the tumor and the history of hereditary predisposition.

Dr. Norbury: The case illustrates the value of cerebral localization. It was probably never operable. The optic nerve tract may have been compressed as far as the chiasm.

In reply to a question Dr. Crouch stated that only symptomatic treatment was attempted, the case promising no possibility of cure.

On motion, Society adjourned to meet at the place to be selected by the Committee on Program.

Katharine Miller, Secretary.

Medical Societies of Chicago

**Date of Organization, Number of Members,
Time of Meeting, List of Officers
and List of Members.**

a--CHICAGO MEDICAL SOCIETY.

Organized April 5, 1852.
Number of members, 950.
Meets every Wednesday evening.
President, Jas. H. Stowell, 103 State St.
First Vice President, A. H. Ferguson.
Second Vice President, Adolph Gehrman.
Secretary, S. C. Plummer, 4305 Lake St.

b--PHYSICIAN'S CLUB OF CHICAGO.

Organized Nov. 25, 1895.
Number of members, 250.
Meets monthly.
President, W. H. Wilder, 103 State St.
Secretary, L. H. Mettler, 100 State St.
Treasurer, L. Blake Baldwin.

c--CHICAGO ACADEMY OF MEDICINE.

Organized.
Number of members.
Meets second Friday of each month.
President, W. L. Baum, 103 State St.
First Vice President, T. S. Coolidge, 103 State St.
Second Vice President, H. N. Moyer, 103 State St.
Secretary, J. G. Kiernan, 103 State St.
Treasurer, E. S. Talbott, 103 State St.

d--CHICAGO PATHOLOGICAL SOCIETY.

Organized 1878.
Number of members, 200.
Meets second Monday of each month.
President, Ludvig Hekton, Rush Med. College.
Vice President, M. Herzog, 174 E. Chicago Ave.
Secretary, Geo. H. Weaver, 535 Washington Boulevard.
Treasurer, F. B. Earle, 903 Monroe St.

e--CHICAGO SURGICAL SOCIETY.

Organized 1900.
Number of members, 20.
Meets first Friday of each month.
President, Christian Fenger, 269 LaSalle Ave.
First Vice President, J. B. Murphy, 100 State St.
Secretary, Daniel N. Eisendrath, 103 State St.
Treasurer, Ernest J. Melish, 103 State St.

f--CHICAGO GYNAECOLOGICAL SOCIETY.

Organized 1878.
Number of members, 40.
Meets third Friday of each month.
President, Reuben Peterson, 103 State St.
First Vice President, Lester E. Frankenthal, 4800 Kimbark Ave.
Second Vice President, Henry Banga, 456 LaSalle Ave.
Secretary, Wm. H. Rumpf, 4720 Kenwood Av.
Treasurer, Addison H. Foster 779 W. Monroe St.
Editor, Chas. L. Bacon, 426 Center St.
Pathologist, Emil Ries, 100 State St.

g--CHICAGO OPHTHALMOLOGICAL AND OTOLOGIC SOCIETY.

Organized 1892.
Number of members, 58.
Meets second Tuesday of each month.
President, C. D. Wescott, 34 Washington St.
First Vice President, Casey A. Wood, 103 Adams St.
Secretary and Treasurer, C. O. Pinckard, 103 State St.

h--CHICAGO LARYNGOLOGICAL SOCIETY.

Organized.
Number of members.
Meets quarterly.
President, T. Melville Hardie, 34 Washington St.
Secretary, John E. Rhodes, 34 Washington St.

i--CHICAGO NEUROLOGICAL SOCIETY.

Organized.
Number of members.
No regular time of meeting.
President, Henry M. Lyman, 100 State St.
First Vice President, Hugh T. Patrick, 34 Washington St.
Corresponding Secretary, Chas. H. Lodor, 3136 Indiana Ave.
Recording Secretary and Treasurer, Sidney Kuh, 103 State St.

j--CHICAGO PEDIATRIC SOCIETY.

Organized.
Number of members, 12.
Meets first Thursday of each month.
President, A. C. Cotton, 1485 W. Jackson Boulevard.
First Vice President, W. S. Christopher, 408 Center Ave.
Secretary and Treasurer, Emma Moore 6025 Prairie Ave.

k--CHICAGO ORTHOPEDIC SOCIETY.

Organized.
Number of members, 12.
Meets monthly.
President, Frederic S. Coolidge, 103 State St.
Secretary and Treasurer, John L. Porter, 103 State St.

l--MEDICO-LEGAL SOCIETY.

Organized May 15, 1886.
Number of members, 106.
Meets quarterly.
President, N. S. Davis Jr., 65 Randolph St.
First Vice President, H. N. Moyer, 103 State St.
Second Vice President, E. J. Doering, 2458 Indiana Ave.
Secretary, Wm. L. Baum, 103 State St.
Treasurer, Junius C. Hoag, 4669 Lake Ave.

m--CHICAGO MEDICAL EXAMINERS.

Organized.
Number of members.
Meets quarterly.
President, Denslow Lewis, Tacoma Bldg.
First Vice President, W. K. Harrison, 1602 Masonic Temple.
Secretary, Geo. T. Buller, 103 State St.
Treasurer, J. H. Coulter, 103 State St.

n--CHICAGO SOCIETY OF INTERNAL MEDICINE.

Organized.

Number of members.

Meets monthly.

President, John A. Robison, 297 Ashland Boulevard.

First Vice President, James B. Herrick, 103 State St.

Secretary, Edward F. Wells, 4571 Lake Ave.

Treasurer, Maurice L. Goodkind, 3035 Indiana Ave.

o--MEDICAL WOMEN'S CLUB.

Organized Nov. 21, 1894.

Number of members, 35.

Meets first Tuesday of each month.

President, Gertude E. Wellington, 1008, 92 State St.

First Vice President, Celestie D. Messinger, 7 Central Music Hall.

Second Vice President, Mary L. Vincent, 70 State St.

Third Vice President, Emmogene P. Nutting, 168 39th St.

Secretary, Jennie T. Topinka, 2534 Wentworth Ave.

Treasurer, Sarah A. Conrad, 690 W. Adams St.

p--SOUTH CHICAGO MEDICAL SOCIETY.

Organized 1890.

Number of members, 70.

Meets first and third Tuesdays of each month.

President, Chas. F. Swan, 9139 Commercial Ave.

First Vice President, J. J. Larkin, 92nd & Commercial Ave.

Second Vice President, Harry E. Clyde, 9139 Commercial Ave.

Secretary, John S. Davis, 9139 Commercial Ave.

Treasurer, Don S. Harvey, 92nd & Commercial Ave.

q--NORTH CHICAGO MEDICAL SOCIETY.

Organized 1893.

Number of members, 60.

Meets monthly.

President, Carl Wagner, 74 Lincoln Ave.

First Vice President, Keyes Belcham, 299 N. State St.

Secretary and Treasurer, A. K. Warner, 1147 Belmont Ave.

r--GERMAN MEDICAL SOCIETY.

Organized.

Number of members, 40.

Meets first and third Thursday of each month.

President, G. Futterer, 716 Fullerton Ave.

Vice President, Emil Ries, 3524 Indiana Ave.

Secretary, Adolf Decker, 425 Orchard St.

s--SCANDINAVIAN MEDICAL SOCIETY.

Organized.

Number of members, 38.

Meets second Thursday of each month.

President, N. E. Remmen, 103 State St.

First Vice President, Anders Frick, 366 E. Division St.

Secretary and Treasurer, M. A. Unseth, 210 Grand Ave.

t--BOHEMIAN MEDICAL SOCIETY.

Organized 1895.

Number of members.

Meets second Friday of each month.

President, Chas. Stulik, 525 S. Lincoln St.

First Vice President, Frank J. Novak, 733 W. 18th St.

Secretary, W. J. Dvorak, 1540 W. 22nd St.

Treasurer, J. Vasumpur, 807 S. Ashland Boulevard.

For convenience the members of all Chicago Societies have been arranged in one alphabetical list with letters to indicate to which societies each physician belongs.

The small letters preceding the names of the societies are used in the list of members to show the societies to which each physician belongs.

g, m, s, & t, have not responded to requests for a list of members and consequently do not appear.

Total number of members in Chicago medical societies as reported, 1,078.

A star (*) in front of the name indicates membership in the Illinois State Medical Society.

Total number of members of the Illinois State Medical Society, 187.

*Abbott, W. C., a, b, q, 2666 N. Hermitage Ave.

Abel, J. F., a, 3800 Dearborn St.

Abt, I. A., a, b, j, l, n, 4323 Vincennes Ave.

Acres, Louise, a, 960 Jackson Boulevard.

Adams, C. J., a, 856 W. Monroe St.

Adams, N. K., a, 225 Oakly Boulevard.

Adolphus, P., a, 737 W. Madison St.

Ahren, J. J., a, 4959 Washington Park Place.

Albright, I. N., a, 571 W. Madison St.

Alderson, J. J., a, 103 State St.

Alexander, H. C. B., c,

Allan, Frances M., j, 333 E. 41st St.

Allen, W. G., a, 70 State St.

*Allport, W. H., a, e, l, 85 Rush St.

*Allport, Frank, a, b, 92 State St.

Amberg, E., a, 32 Adams Ave. W. Detroit, Mich.

Anderson, Carl H., a, c, 100 State St.

Anderson, H. G., b, 128 64th St.

Anderson, J. A., p, 151 Chitttenham Place.

Andrews, A. H., a, 100 State St.

*Andrews, Edmund, a, 3912 Lake Ave.

*Andrews, E. W., a, b, e, 100 State St.

*Andrews, F. T., a, f, 100 State St.

Andrews, Wells, n,

Angear, J. J. M., d, 482 W. Lake Ave.

Angell, Katherine L., d, 3745 Indiana St.

Anthony, H. G., a, 465 Dearborn Ave.

Antisdale, Edwin S., a, 103 State St.

Arbuckle, A. T., a, 4924 Greenwood Ave.

Archer, I. J., a, 100 State St.

Arnold, M. B., p, 225 92nd St.

Arnold, Philip, a, Elizabeth, Ill.

Arnold, W. J., a, 6759 Honore St.

Auld, J. M., b, d, 714 W. Monroe St.

Avery, S. J., a, 780 Walnut St.

*Babcock, Robert H., a, b, d, h, i, n, 103 State St.

*Bacon, Charles S., a, b, c, d, f, q, 426 Center St.

Bacon, M. W., a, b, 63rd St., & Stewart Ave.

- *Bacon, J. B., a, b, c, f, Macomb, Ill.
 Baer, Almerin W., a, 403 Security Building.
 Bailey, W. G., a, 7000 Princeton Ave.
 Bailey, G. P., a, 407 E. 43rd St.
 Baird, J., a, 1945 Maple Ave.
 Baldwin, A. E., a, c, l, 823 W. Adams St.
 *Baldwin, L. B., a, b, c, 103 State St.
 Ballenger, Wm. L., a, b, c, h, 100 State St.
 Banga, Henry, f, a, l, 496 LaSalle Ave.
 Banks, H. W., a, Escanaba, Mich.
 Bannister, H. M., a, i, 823 Judson Ave.
 Barker, L. F., a, University of Chicago.
 Barlow, L. M., a, 125 E. 22nd St.
 Barnard, H. S., r, 4031 Vincennes Ave.
 Barnes, Walter S., a, 3000 Michigan Boul.
 Barnes, C. L., a, 241 Wabash Ave.
 Barrett, Channing W., a, 438 LaSalle Ave.
 Bartholomew, J. N., b, q, 421 Center St.
 Bartlett, John, a, n, 281 Oak St.
 Bartlett, R. A., d, 14 Loomis St.
 Bass, G. E., p, 9901 Ewing Ave.
 *Baum, W. L., a, b, c, d, l, r, 103 State St.
 Bausman, A. B., a, d, n, 576 Madison St.
 *Beard, C. H., a, b, 34 Washington St.
 Beard, C. R., i, 34 Washington St.
 Beardsley, J. A., a, Eggleston Ave.
 Bebb, W. S., a, LaGrange, Ill.
 Beck, Carl, a, c, e, r, 522 Dearborn Ave.
 Beck, Emil G., a, r, 620 LaSalle Ave.
 Beck, Jos. C., a, r, 5036 Washington Park Place.
 Beery, C. C., a, 1737 Wabash Ave.
 Beeson, S. J., a, 304 Washington Boulevard.
 Beffel, J. M., d, 2400 Indiana Ave.
 Behrendt, Alex, r, 6225 S. Halstead St.
 Behrendt, A. J., a, r, 93 Fowler St.
 Belfield, W. T., a, b, l, 102 Clark St.
 Belknap, F. W., a, j, 385 N. State St.
 Bell, J. J., a, Fullerton & Clybourn.
 Bennett, E. R., a, n, 443 Seminary Ave.
 Bennett, O. P., a, Mazon, Ill.
 Benson, J. N., p, 235 91st St.
 Bergerson, J. Z., a, 34 Washington St.
 Bergstram, E. A., p, 9034, Superior Ave.
 Berry, J. G., a, 3659 S. Halsted St.
 Bert, E., a, 3242 Vernon Ave.
 Bertling, Adol. E., r, 511 Ashland Boulevard.
 Besley, F. A., a, 1070 E. 63rd St.
 *Best, J. E., a, Arlington Heights, Ill.
 Bettman, B., a, l, 103 State St.
 *Bevan, Arthur D., a, b, d, e, l, 100 State St.
 Bidwell, T. S., a, 482 Ashland Ave.
 Bigelow, Clarissa, j, 4645 Evans Ave.
 Bigelow, Frederic E., a, 4259 Cottage Grove Ave.
 *Billings, Frank, a, b, d, l, n, 100 State St.
 *Binkley, J. T. Jr., a, b, f, l, 452 E. 40th St.
 *Bishop, R. W., a, b, 70 State St.
 Blackwood, A. L., p, Winnepeg Block.
 Blanchard, Wallace, a, k, l, 34 E. Monroe St.
 Bland, Cora, o, 92 State St.
 Blech, G. M., r, 1434 Michigan Ave.
 Bloomington, J. S., a, 117 LaSalle St.
 Bokhof, David Henry, a, Lansing, Mich.
 Borucki, F. M., p, 8715 Commercial Ave.
 *Borland, L. C., b, 685 Ogden Ave.
 Bouchard, W. L., p, 205 Cobb Building.
 *Bouffleur, A. L., a, b, d, e, l, i159 Washington Boulevard.
 Boulton, W. C., b, 210 Grand Av., Waukegan, Ill.,
 Bradley, C. D., b, 131 Dearborn Ave.
 *Bradley, W. J., a, Coal City, Ill.
 Brannon, G. H., a, Manhattan, Ill.
 *Brannon, L., a, Barber Building, Joliet, Ill.
 *Braunsworth, Anna M., a, 100 State St.
 *Brayton, S. H., a, 1537 Chicago Ave., Evanston, Ill.
 *Breckenridge, S. L., a, Riverside, Ill.
 Brennecke, H. A., d, Aurora, Ill.
 Brick, J. H., a, Hammond, Ind.
 Bridge, Norman, a, d, Los Angeles, Cal.
 *Brill, John A., a, 428 Milwaukee Ave.
 Brislow, A. J., a, 47 State St.
 Broell, Albert C., a, q, 131 Fremont St.
 Brook, J. E., a, Coal City, Ill.
 Brophy, T. W., a, d, l, 126 State St.
 Brougham, E. J., a, 206 E. Chicago Ave.
 *Brower, D. R., b, c, d, a, i, l, n, 597 Washington Boulevard.
 Brown, E. M., a, 254 Ashland Boulevard.
 Brown, F. I., a, 2340 N. 42nd Ave.
 Brown, J. H., a, 34 Washington St.
 Brown, H. H., a, q, 103 State St.
 *Brown, M. R., a, b, h, l, 34 Washington St.
 *Brown, Sanger, a, b, c, d, i, l, 757 Washington Boulevard.
 Brugge, H. J., a, Cor. Polk & W. 40th St.
 Brumback, A. H., a, b, 100 State St.
 Bruning, H. F., q, 359 Roscoe Boul.
 Bryan, Clarence H., a, 3030 Wabash Ave.
 Bryan, C. J., d, 1079 Washington Boulevard.
 Buck, J. P., a, 413 LaSalle Ave.
 Buckley, S. C., a, 268 55th St.
 Budde, Otto, h, State & 31st Sts.
 Budzow, T. F., a, 103 State St.
 Budzow, A. M., a, 1383 N. Clark St.
 Buford, Coleman G., a, 448 N. Clark St.
 Burcky, W. E., a, 6641 S. Halsted, St.
 *Burdick, A. S., a, Hinsdale, Ill.
 Burdick, G. G., a, 2727 State St.
 Burgess, A. J., d, Milwaukee, Wis.
 Burkholder, J. F., a, 100 State St.
 Burlingame, D. E., a, 18 Villa St., Elgin, Ill.
 Burnard, H. W., p, 9139 Commercial Ave.
 Burr, A. H., a, b, n, 100 State St.
 Burr, Chauncy S., a, b, 9372 Longwood Ave.
 Burroughs, W. M., d, 885 W. North Ave.
 Burry, James H., a, b, 4962 Washington Ave.
 Burry, Jas., l, Rookery Bldg.
 Burton, E. F., a, 401 Lake St., Oak Park, Ill.
 Burwash, Henry J., a, b, d, 721 Hoyne Ave.
 Bush, Burtha, d, Rogers Park.
 Butier, Wm. J., a, c, j, n, r, 1485 Jackson Boulevard.
 Buttler, G. F., a, b, c, n, Alma, Mich.
 *Butterfield, E. H., a, Ottawa, Ill.
 Butterman, W. F., a, 170 Lincoln Ave.
 Butts, J. Baptist, a, 748 W. 12th St.
 *Byford, H. T., a, b, c, f, l, 3021 Calumet Ave.
 *Byrne, John H., a, l, n, 690 W. Monroe St.
 Cambourn, S. A., a, 5101 Wentworth Ave.
 Campbell, A. W., a, 240 Wabash Ave.
 Campbell, J., a, 34 Washington St.
 Campbell, J. G., a, 6757 Wentworth Ave.
 Campbell, J. T., h, 34 Washington St.
 Campbell, Ralph R., a, d, 204 Dearborn St.
 Capps, J. A., a, d, n, 100 State St.
 Carey, F., a, l, 2935 Indiana Ave.

- Carr, Rachel H., a, b, 4725 Kenwood Ave.
 Carpenter, Geo. T., a, 103 State St.
 *Carter, J. M. G., a, Waukegan, Ill.
 Cary, A. E., l, 103 State St.
 Case, La F. W., a, 212 W. 4th St. Waterloo, Iowa.
 Caspers, Paul, a, r, The Pickwick, 20th & Michigan Ave.
 *Casselbury, W. E., a, b, h, l, n, 34 Washington St.
 Cazier, M. H., b, 4116 Lake Ave.
 Chandler, F. E., a, 1236 Noble Ave.
 Chandler, Ralph, d, Milwaukee, Wis.
 Chapin, C. W., a, Wilmette, Ill.
 Chapin, S. N., a, b, 70 State St.
 Chapman, C. F., d, 833 Washington Boulevard.
 Chapman, Geo. L., d, Alixian Brothers Hospital.
 Cheney, H. W., a, b, 6303 Monroe Ave.
 *Chenoweth, C., a, 256 N. Main St., Decatur, Ill.
 Chester, Paul, a, 6 E. 47th St.
 Chew, J. H., a, n, 23 Astor St.
 Christie, Wm., b, 7100 Cottage Grove Ave.
 Christoph, E. O., a, r, 3662 Michigan Ave.
 Christopher, W. S., a, b, c, d, f, j, n, 488 Center St.
 *Church, Archibald, a, b, i, l, 804 Pullman Bldg.
 Churchill, F. S., a, b, j, n, 583 Division St.
 Chvatal, J. F., a, S. W. Cor. 22nd & Kedzie.
 Class, W. J., a, d, j, q, 391 N. Halsted St.
 Clausen, James J. d, Kansas City, Mo.
 Clausius, M. F., a, Barrington, Ill.
 Clement, F. M., b, 95th & Wood Sts.
 Cleveland, George H., b, d, n, 951 W. Harrison St.
 Clock, F. B., p, 74th St.
 Close, B. F., a, 47th & Evans Ave.
 Clyde, Harry E., p, Swan Building.
 Coates, W. E., d, 655 W. 12th St.
 Coey, A. J., a, 34 Washington St.
 Colburn, J. E., a, b, d, i, l, 34 Washington St.
 Colby, B. Dorr, a, 560 Jackson Boulevard.
 Cole, S., a, 103 State St.
 Coleman, W. F., b, l, 5118 Cornell Ave.
 Collins, Dennis, a, 447 26th St.
 Conbey, Daniel, a, Left no address.
 Conger, Rosemond, o, 945 Trumbull Ave.
 Conklin, A., a, n, 631 Robey St.
 Conley, R. H., a, 477 Grand Ave.
 Conley, T. J., a, 1593 Milwaukee Ave.
 Connell, F. Gregory, a, c, 290 LaSalle Ave.
 Conrad, Sarah Anderson, o, 692 W. Adams St.
 Cook, E. P., a, d, 284 Lincoln Ave.
 Cook, J. C., a, b, j, n, 5708 Rosalie Court.
 Cooke, A. H., a, l, 234 Dearborn Ave.
 Cooke, Jean M., d, 1609 Division Boulevard.
 Coolidge, P. S., a, b, c, d, e, l, 103 State St.
 Copeland, W. L., d, n, 918 Warren Ave.
 Corwin, A. M., a, b, d, h, n, 34 Washington St.
 Cory, A. L., a, b, 4104 State St.
 *Cotton, A. C., a, b, d, j, n, 1485 Jackson Boul.
 Cottrell, D., a, 264 E. Ohio St.
 *Coulter, J. H., b, c, d, h, l, 103 State St.
 Courtwright, Chauncy W., a, b, l, 364 E. 63rd St.
 Coy, W. F., a, n, 502 LaSalle Ave.
 Craig, J. G., a, 5900 S. Halsted St.
 Croftan, A. C., d, 103 State St.
 Croker, J. N., a, 201 22nd St.
 Crowder, T. R., a, d, 100 State St.
 Curtis, A. M., a, Freedmen's Hospital Washington, D. C.
 Curtis, John H., n, Madison cor. Ashland Boul.
 Curtis, Lester, a, n, 35 University Place.
 Cuthbertson, Wm., a, b, c, 103 State St.
 Dahl, S., a, b, c, 822 N. Western Ave.
 Dal, John W., d, l, 499 N. Roby St.
 Dalamore, J. F., a, New Era Building, B. Island, Ave.
 Daly, T. A., a, 100 State St.
 *Danforth, I. N., a, b, d, l, n, 70 State St.
 Davenport, Nora S., a, 207 Warren Ave.
 Davey, J. K., a, 185 Madison St.
 Davis, Chas. G., a, 31 Washington St.
 *Davis, Effa V., a, j, 15 Washington St.
 *Davis, Nathan S. Jr., a, i, l, n, 65 Randolph St.
 *Davis, Nathan S. Sr., a, i, n, 65 Randolph St.
 Davis, Nixon, p, 7502, Saginaw Ave.
 Davis, Thomas A., a, b, d, e, l, 987 Jackson Boul.
 Davis, John S., 9139 Commercial Ave.
 Davis, W. C., a, 100 State St.
 Davidson, F. S., a, 1072 Lincoln Ave.
 Davison, Charles, a, 103 State St.
 Dearlove, Mary A., o, 972 W. Jackson Boul.
 Decker, Adolph, a, r, 425 Orchard St.
 *DeLee, J. B., a, 3632 Prairie Ave.
 Deming, H. H., a, b, l, 4356 Greenwood Ave.
 *Dennis, G. J., a, Kenwood Hotel.
 Detlefsen, F., a, 1072 Lincoln Ave.
 *Detweiler, E. S., a, LaGrange, Ill.
 *DeVeny, S. C., a, b, c, l, 2542 Indiana Ave.
 *Dewey, Richard, i, 34 Washington St.
 *Dewey, F. J., b, d, 302 S. Oakley Ave.
 Diamond, I. B., d, 587 Halsted St.
 *Dickerman, Edward T., a, b, c, d, h, l, 103 State St.
 *Dickinson, Fannie, a, b, 70 State St.
 Dickinson, S. B., a, Austin, Ill.
 Dickson, W. F., a, b, 70 Madison St.
 Dinwiddie, J. A., a, 3302 Cottage Grove Ave.
 Doan, P. P. S., a, q, 385 N. State St.
 Dodd, Oscar, a, b, 103 State St.
 Dodds, Robert, a, f, l, 144 Oakwood Boulevard.
 Dodson, John M., a, b, d, n, 568 Washington Boulevard.
 *Doepfner, Karl, a, d, r, 581 Orchard St.
 *Doering, Edmund J., a, b, f, l, 2458 Indiana Ave.
 Doherty, David J., a, d, 143 E. North Ave.
 Dolan, A. N. J., a, 905 Wilson Ave.
 Dold, Wm. Elliott, a, i, Lake Geneva, Wis.
 Donaldson, H., d, i, Chicago University.
 Dowatt, N., a, 838 W. 18th St.
 Downey, Wm. S., a, 550 Jackson Boulevard.
 *Dubs, Rudolph S., a, 1340 Belmont Ave.
 *Dudley, E. C., a, b, d, f, 1617 Indiana Ave.
 Duff, Guy C., a, 1426 Roscoe St.
 Dunavan, J. W., b, 4257 State St.
 Duncan, Wm. E., a, n, 6058 Kimbark Ave.
 Dvorak, W. J., t, 1541 W. 22nd St.
 Driscoll, J. J., a, 6216 Wentworth Ave.
 Dwyer, Anna, a, l, 100 State St.
 Eades, B. B., a, 683, Washington Boulevard.
 Earle, Clarence, a, b, Desplaines, Ill.
 Earle, F. B., a, b, d, f, l, n, 110 Warren Ave.
 Eckley, W. T., a, d, l, 5816 S. Park Ave.
 *Edwards, A. R., a, b, d, h, i, n, 2818 Indiana Ave.

- *Egan, James A., a, b, q, Springfield, Ill.
 Einarson, Benedict, a, 640 W. 63rd St.
 Eisendrath, D. N., a, b, d, e, r, 3125 Michigan Ave.
 Eiss, D. W., a, 2358 Wentworth Ave.
 Eldred, C. C., a, Braidwood, Ill.
 *Elliott, Arthur R., a, b, c, n, 103 State St.
 Elliott, Elihu N., a, 1603 N. Clark St.
 Emmons, F. A., a, b, 4129 Drexel Boulevard.
 Engelmann, Rosa, a, c, d, j, l, Hyde Park Hotel.
 Engert, Rosa H., o, 34 Washington St.
 Errant, Derexa M., a, 346 54th St.
 Eskridge, J. H., a, b, 4166 Halsted St.
 Eskridge, Belle C., a, 4166 Halsted St.
 *Evans, W. A., a, b, c, d, n, 103 State St.
 Ewell, M. D., c,
 Eycleshymer, A. C., d, University of Chicago.
- Faber, Paul J., a, State & Madison Sts.
 Faith, P., a, 103 State St.
 Faith, Thomas; p, 103 State St.
 Fales, Louis H., a, Baker Block, Racine, Wis.
 Falles, S. K., a, 1049 W. Madison St.
 *Favill, H. B., a, b, d, i, n, 100 State St.
 Felmler, S. T., a, 5101 Ashland Boulevard.
 *Fenger, Christian, a, b, e, l, 269 LaSalle Ave.
 Fenn, C. T., a, 6117 Washington Ave.
 *Ferguson, A. H., a, b, c, f, i, l, 34 Washington St.
 Ferguson, Clara B., a, Dunning, Ill.
 Findley, Palmer, a, f, 100 State St.
 Fischer, Gustav, a, 903 Kedzie St.
 Fischkin, E. A., r, 486 Milwaukee Ave.
 Fisher, John, a, b, d, n, q, 364 LaSalle Ave.
 Fisher, Wm. A., a, b, 103 State St.
 Fiske, G. F., a, b, 438 LaSalle Ave.
 Fitch, C. M., d, 645 W. Monroe St.
 Fitch, T. D., a, 296 W. Monroe St.
 Fitch, W. M., a, d, 645 W. Monroe St.
 Fletcher, J. R., a, Winnoka, Ill.
 Folsbee, Willark, a, 52 Waiton Place.
 Foote, L. F., a, Cherry Valley, Ill.
 Ford, Edward P., a, 1000 Warren Ave.
 Fortner, E. C., a, 579 W. Adams St.
 Foster, A. H., a, d, f, n, 779 W. Monroe St.
 Fowler, J. V., j, 31 Grand Ave.
 *Frank, J., c, e, 17 Lincoln Ave.
 Frankel, Eugene, r, 617 W. 12th St.
 Frankenstein, Victor S., a, 3505 Indiana Ave.
 Frankenthal, L. E., a, f, l, 3226 Michigan Ave.
 Fraser, W. E., a, 5490 Washington Ave.
 Freer, O. P., a, h, q, 288 E. Huron St.
 Fricke, Anders, a, q, 366 E. Division St.
 Friend, E., a, d, 70 State St.
 Friend S., d, Milwaukee, Wis.
 Froom, A. E., a, b, 3726 LaSalle St.
 Frothingham, H. H., a, 4304 Lake Ave.
 Fuller, Wm., a, 4701 Calumet Ave.
 Furlong, M., a, 246 E. 47th St.
 Futterer, Gustav, a, b, c, d, h, n, 716 Fullerton Ave.
- Gaebler, Arthur, a, 4732 Ashland Ave.
 Gage, Frances M., o, 9112 Commercial Ave.
 Galloway, D. H., a, 200 Oakwood Boulevard.
 Gamble, W. E., a, l, 100 State St.
 Garceau, A. E., a, b, 155 53rd St.
 Gardiner, E. J., a, b, 36 Washington St.
 *Gary, I. C., a, 2184 Archer Ave.
- Gatchel, W. M., a, 662 W. 14th St., Des Moines, Iowa.
 *Gates, Wm. S., a, 2725 N. Lincoln St.
 Gavin, E. F., d, Waukegan, Ill.
 *Gehrmann, A., a, c, d, 103 State St.
 Gentles, H. W., a, d, n, 210 E. 51st St.
 *German, Wm. H., b, Morgan Park, Ill.
 Gfroerer, G. S., a, 439 W. Taylor St.
 Gill, James C., a, b, d, 34 Washington St.
 Gilmer, Thomas G., a, 31 Washington St.
 Gillmore, Robert T., a, b, 460 E. 63rd St.
 Girard, A. G., a, U. S. Army General Hospital, Presidio, Cal.
 Glenn, F. L., a, 79 N. 48th Ave.
 Goer, F. F., a, Columbus, Neb.
 Goetz, F. A., a, r, 1206 Milwaukee Ave.
 Godfrey, H. T., a, Galena, Ill.
 Going, Zenas, a, b, 4642 Indiana Ave.
 Goldnamer, W. W., a, 1103 State St.
 *Goldspohn, A., a, f, l, 519 Cleveland Ave.
 Goodkind, M. L., a, b, i, l, n, 3033 Indiana Ave.
 Goodsmith, H. M., a, 100 State St.
 Goldsmith, W. P., a, 957 N. Clark St.
 Gorgas, Laurence D., a, 57th St. & Lake Ave.
 Gourley, W. W., a, Downer's Grove, Ill.
 Gowen, G. A., a, j, 2604 Wallace St.
 Grace, R., a, 1750 Grace St., Lake View, Ill.
 Gradle, Henry, a, c, i, q, 100 State St.
 *Graham, D. W., a, b, d, 672 W. Monroe St.
 Graham, H. G., a, 264 S. Halsted.
 Gramm, Carl T., a, Winnelka, Ill.
 Graves, C. H., a, b, 287 W. 12th St.
 Graves, Robert, a, b, 807 S. Halsted St.
 Gray, Ethan A., a, n, q, 158 Evanston Ave.
 Gray, John T., a, 181 W. Madison St.
 Gray, P. M., a, 1659 Lincoln Ave.
 *Green, F. C., a, b, 42 Wabash Ave.
 Green G. W., a, 1290 Ravenswood Park, Ill.
 Greenfield, C. F., a, Halsted & Harrison.
 Greenleaf, Geo. F., b, 4450 Oakenwald Ave.
 *Gregory, Louis L., a, b, q, 574 Evanston Ave.
 *Grim, A., a, Franklin Grove, Ill.
 Grim, U. J., d, 247 W. Madison St.
 Grinker, J., d, 952 Milwaukee Ave.
 Grossman, F. A., a, q, 5857 State St.
 Guerin, J., a, 3211 Wabash Ave.
 Guilford, Paul a, 100 State St.
 Gulick, J. M., a, Mantone, Ill.
 Gunn, Janet, d, 100 State St.
- Hagens, G. J., 6053 S. Halsted St.
 *Haight, Allen T., a, b, q, 103 State St.
 Haines, Walter S., a, Rush Medical College.
 Haiselden, H. J., a, 475 Beldow Ave.
 Hankanson, A., a, p, 153 92nd St.
 Hale, A., i, 103 State St.
 Hale, A. B., a, i, r, 103 State St.
 Hall, A. M., a, q, 100 State St.
 Hall, Geo. C., a, 533 State St.
 Hall, Geo. W., a, 34 Washington St.
 Hall, Junius M., a, 2 Washington Place.
 Hall, R. N., d, 339 Warren Ave.
 Hall, W. S., a, 2431 Dearborn St.
 Hallberg, C. S. N., c,
 *Halstead, A. E., a, c, e, 103 State St.
 Hamill, Edwin, a, b, d, 812 Warren Ave.
 Hamilton, Alice, d, Hull House.
 Hammond, G. M., a, b, d, n, 683 W. Adams St.
 Hammond, J. D., a, 21 Auditorium Building.
 Hanna, Edw. A., b, 725 W. 69th St.

- Hancock, Jos. L., b, 255 31st St.
 Handshaw, Anna M., a, 518 Madison St.
 Hanley, Joseph, b, 3515 Grand Boulevard.
 Hanson, Z. P., a, d, 617 Washington, Boulevard.
 Hardie, T. M., a, b, h, 1, 36 Washington St.
 Hardon, R. W., a, b, 103 State St.
 *Hardy, H. T., a, Kaneville, Ill.
 Harlan, A. W., a, d, 1000 Masonic Temple.
 Harms, H., a, r, 27 Humboldt Boulevard.
 Harnisch, F. C., a, 103 E. Adams St.
 Harpole, W. S., a, 158 E. 47th St.
 *Harris, M. L., a, d, e, f, 100 State St.
 Harrison, W. K., a, 52 Walton Place.
 *Harsha, W. M., a, b, e, 103 State St.
 Hartley, J. D., a, 7840 Emerald Ave.
 Hartman, A., p, Winnepeg Block.
 Hartman, F. S., a, d, 568 Congress St.
 Hartung, Henry, a, 596 Sheffield Ave.
 Harvey, Andrew, a, 565 W. Madison St.
 Harvey, Don S., a, p, 1, 9154 Commercial Ave.
 Harvey, Jas. A., a, 100 State St.
 Harvey, R. H., a, c, d, n, 2100 Calumet Ave.
 Harvey S. N., a, 7032 Stony Island Ave.
 Harwood, W. E., a, Eveleth, Minn.
 Haskins, Geo. W., b, 100 State St.
 *Hatfield, M. P., b, J, n, 100 State St.
 Haven, A. C., b, P. O. Box 96, Lake Forest, Ill.
 Haven, Jos., c, b, U. S. Consul, Barse Terri St., West Indies.
 Hawk, M. C., a, Blue Island, Ill.
 Hawley, A. W., a, b, Hospital, Ill.
 Hawley Clark W., a, b, 70 State St.
 Hawley, G. F., a, 103 State St.
 Hawley, J. R., a, 3515 Grand Boulevard.
 Hayford, Ernest L., a, 926 W. Monroe St.
 Hayman, L. B., a, b, n, 167 Oak Wood Boulevard.
 Hays, Jacob, r, 644 W. 21st St.
 Head, G. P., a, 117 S. Central Ave., Austin, Ill.
 Heckard, M. O., a, Department of Health, City.
 Hector, W. S., a, b, 3656 State St.
 Heineck, A. P., a, d, 872 Trumble Ave.
 Heiz, E. J., a, Chicago View Hotel.
 *Hektoen, Ludwig, a, d, n, Rush Medical College.
 Henderson, E. E., a, 201 W. Erie St.
 Henkel, F. W. E., a, b, d, 538 Ashland Boul.
 Hennius, S. A., a, 567 Chicago Ave., W.
 *Henrotin, Fernand, a, b, d, f, i, 1, 353 LaSalle Ave.
 *Henry, R. H., a, Poetone, Ill., (Will Co.)
 Henssler, O. W., a, r, 729 S. Halsted St.
 Hepburn, J. C., a, 3601 S. Halsted St.
 *Hequembourg, J. E., a, b, l, n, 513 Fullerton Ave.
 *Herb, Isabella C., a, d, 421 Center Ave.
 *Herrick, James B., a, b, d, i, n, 751 Warren Ave.
 Hertz, Karl, a, r, 369 Center St.
 *Herzog, Maxamilian, a, d, q, r, 274 E. Chicago Ave.
 Hess, F. A., a, 247 E. Division St.
 Hessert, William, a, b, d, q, 106 State St.
 Hester, W. W., b, 3640 Cottage Grove Ave.
 Heym, Albrecht, a, d, r, 103 E. Randolph St.
 Heywood, Chas. W., a, Riverside, Ill.
 Hill E. H., a, 488 S. 48th Ave.
 Hilton, Geo. V., a, b, 6327 Woodlawn Ave.
 Hoadley, A. E., b, d, l, 683 Washington Boulevard.
 Hoag, J. C., a, f, l, 4669 Lake Ave.
 Hobbs, J. O. n,
 Hodges, F. J., d, Ashland, Wis.
 Hoelscher, J. H., a, n, 34 Washington St.
 Hoffman, A., a, Petosky, Mich.
 Hoffman, John R., a, 67 Wabash Ave.
 Holberg, J. E., a, 160 N. Halsted St.
 Holland, W. E., a, 103 State St.
 Hollenbeck, F. B., a, 321 E. Chicago Ave.
 Hollinger, J., a, d, h, r, 103 Randolph St.
 *Hollister, John H., a, n, 36 Washington St.
 *Holmes, Bayard, a, b, e, 104 E. 40th St.
 Holmes, Frank, a, 229 S. Paulina St.
 Holmes, Rudolph W., a, b, 158 Evanston Ave.
 Holroyd, E. E., a, 887 Washington Boulevard.
 Holsteen, W. F., a, Ashton, Ill.
 Hook, I. E., a, d, 439 W. Fullerton Ave.
 *Hooper, Henry, a, b, l, n, 34 Washington St.
 Hopkins, C. B., a, 1440 Edgewood Place.
 Hosmor, A. B., a, k, l, 103 State St.
 Houch, J. B., a, Hinsdale, Ill.
 Howat, W. F., a, Hammond, q nd.
 Hoylman, C. J., a, 289 Webster Ave.
 Hoyt, F. C., a, Mt. Pleasant, Iowa.
 *Hotz, F. C., a, 36 Washington St.
 Hudson, John R., a, Co. H. 27th Infantry, U. S. Vol.
 Hughes, T., a, 3700 Wallace St.
 Huizinga, A. J., a, 11, 108 Michigan Ave.
 *Hunt, C. C., a, Dixon, Ill.
 *Hunt, Florence W., a, 100 State St.
 Hunt, John S., a, 440 Englewood Ave.
 Hutchinson, E. B., a, 5708 Monroe Ave.
 Hutchinson, M. H., a, The Cairo, Washington, D. C.
 Huizinga, J. C., c, 100 State St.
 *Hyde, J. N., a, b, l, 100 State St.
 *Ingals, Ephriam, a, 4753 Grand Boulevard.
 Ingals, E. C., a, Oak Park, Ill.
 *Ingals, E. Fletcher, a, b, d, h, l, n, 34 Washington St.
 *Isham, Geo. S., a, 36 Washington St.
 Isham, Ira D., a, Chicago Beach Hotel.
 Isham, R. N., a, 36 Washington St.
 Jackson, Josephine, a, 633 Cleveland Ave.
 Jackson, T. J., a, 521 E. 39th St.
 Jacobs, John M., a, 1018 Wellington St.
 James, R. L., a, Blue Island, Ill.
 Jaques, J. L., j, 702 N. Leavitt St.
 Jaques, W. K., a, b, n, 103 State St.
 Jay, Frank W., a, b, c, d, 103 State St.
 *Jay, Milton, a, 103 State St.
 Jelks, J. T., a, Hot Springs, Ark.
 *Jenks, F. H., a, Ill. Hospital for Insane, Elgin, Ill.
 Jensen, P. C., a, Ministee, Mich.
 Jenney, F. L. B., q, Bittersweet Place.
 Jipson, N. W., b, 4300 Wabash Ave.
 *Johnson, Chas. B., b, Champaign, Ill.
 Johnson, C. W., a, q, 107 E. Chicago Ave.
 *Johnson, Frank S., a, b, d, l, n, 252 Prairie Ave.
 Johnson, G. W., a, Savana, Ill.
 Johnson, G. W., a, c, 733 Grace St.
 Johnstone, A. R., a, Atwood Building.
 Johnstone, A. Ralph, b, 4454 Cottage Grove Ave.
 *Johnstone, Stuart, a, 709 Venetian Building.
 Jones, Chas. D., a, 314 LaSalle St., Aurora, Ill.

- *Jones, Samuel J., a, 92 State St.
 Jordan, E. A., d, University of Chicago.
 Joyce, W. M., a, 592 E. 43rd St.
- Kaczorowski, J., p, 8401 Superior Ave.
 Kahn, H., a, 4703 Indiana Ave.
 Kales, John D., a, 65 Randolph St.
 Kauffman, J. S., a, Blue Island, Ill.
 Kelleher, M. W., a, 424 W. 12th St.
 *Kelly, W. W., a, Joliet, Ill.
 Kemp, N. C., a, 3904 Indiana Ave.
 Kennedy, H. J., b, 4247 Calumet Ave.
 Kercher, John, a Cor. Indiana Ave. & 24th St.
 Kerlin, E. Iles, j, 576 Fullerton Ave.
 Kerr, N., a, d, 298 LaSalle Ave.
 *Kewley, J. R., a, 100 State St.
 Keyes, A. B., a, q, 299 N. State St.
 Kiernan, J. G., b, c, i, 103 State St.
 Kindig, F. M., a, j, 2136 Indiana Ave.
 King, C. B., a, 390 N. Clark St.
 King, Herbert M., d, Grand Rapids, Mich.
 King, Oscar A., i, 70 State St.
 Kirby, W. T., a, 5000 S. Ashland Ave.
 Klebe, A. C., a, h, r, 100 State St.
 Klebs, Arnold, d, n, 600 State St.
 Knudson, T. J., a, 4713 Indiana Ave.
 Koehler, Gustav, r, 404 Claybourn Ave.
 Kohn, Alfred D., d, 3340 Michigan Ave.
 Kolischer, G., a, f, r, 92 State St.
 Kreiger, G. E., b, 6947 Exchange Ave.
 *Kreissl, F., a, b, 92 State St.
 Krueger, J.H., p, 9134 Erie Ave.
 Kreuser, T. A., j, 520 Grand Ave.
 Krone, C. R., a, 1505 Telegraph Ave., Cor. 31st.
 Krost, Joseph, a, Cor. Clark & Randolph Sts.
 Krusemark, Chas., a, i, 94 E. 22nd St.
 Keflewski, W. A., a, 724 18th St.
 *Kuh, E. J., b, i, 1104, 103 State St.
 *Kuh, Sidney, a, b, c, i, l, r, 103 State St.
 *Kunz, Sylvan, a, 420 Center St.
 Kurtz, Carl E., a, 4460 Berkeley Ave.
 Kurtz, Emile, q, r, 84 Lincoln Ave.
- Lackner, E. L., a, j, 103 State St.
 Lacy, Hattie E., a, 70 State St.
 Lagorio, Antonio, a, c, 228 Dearborn Ave.
 Lamb, A. C., p, 12 Winnepeg Block.
 Lang, John M., a, 4800 Prairie Ave.
 Lang, I., n, 308 Park Ave.
 Lapman, Anna R., j, 43rd & Langley Ave.
 Larkin, F. A., b, 63rd & Stewart Ave.
 Larkin, Jas. J., a, b, p, i, Davis Building, State St.
 Larkin, O. Eugene, a, 2078 Jackson St.
 Leach, W. D., d, 1105 W. North Ave.
 Leahy, M. M., d, Anaconda, Mont.
 Leah, Sarrah, J. M., d, 6301 Wentworth Ave.
 LeCount, E. R., d, 398 Marshfield Ave.
 Lee, Edward H., Cor. Halsted & Blue Island
 Lee, Edward, a, b, c, d, e, Cor. Halsted & Blue Island Ave.
 Lee, E. W., a, 529 W. VanBuren St.
 Lee, Francis H., d, 3738 S. Halsted.
 Lee, Julius H., a, 114 N. Center St.
 *Leeming, John a, b, 3541 Indiana Ave.
 Leenhouts, A., a, Holland, Mich.
 *Lemke, A. F., c, d, i, 100 State St.
 Lenhard, Robt., p, 8448 Superior Ave.
 Letourneau, R. A., a, 70 36th St.
 Leusman, F. A., a, 100 State St.
- Lewis, C. J., d, 733 Carroll Ave.
 *Lewis, Denslow, a, b, d, i, 5100 Madison Ave.
 *Lewis, H. F., a, b, d, f, i, 4426 Lake Ave.
 Lewis Thos. Henry, a, 251 Dearborn Ave.
 Lieberthal, David, a, q, r, 103 State St.
 Linden, F. C., a, 1398 Jackson Boulevard.
 Lindsay, A. L., a, 949 W. Harrison St.
 Lindsay, J. Clarence, a, j, 30, 35 Indiana Ave.
 Linnell, B. M., d, n, 197 Claybourn Ave.
 *Lobdell, Effie L., a, 169 S. Clark St.
 Lockwood, Chas. D., a, Pasadena, Cal.
 Lockwood, J. F., a, 1036 Sheridan Drive.
 Lodor, Chas. H., a, i, n, 3136 Indiana Ave.
 Loeb, Lee, c, i, r, 5601, Washington St.
 Loeb, a, d, i, n, 5754 Woodlawn Ave.
 Loew, Alex, r, 3929 Prairie Ave.
 *Loomis, E. B., a, d, 133 Clark St.
 Loring, D. J., a, Valpariso, nd.
 Loring, J. B., a, 103 State St.
 Low, Julia Rose, i, 100 State St.
 Lucas, G. H., a, 265 Milwaukee St., Joliet, Ill.
 *Luehr, Edward, a, b, p, i, 9141 Houston Ave.
 Luken, M. H., a, d, 587 W. North Ave.
 Lumley, R., d, i, 1074 N. California Ave.
 *Lydston, G. F., a, b, c, i, q, 100 State St.
 *Lyman, Henry M., a, d, i, n, 200 Ashland Boul.
 Lyons, J. A., a, b, f, i, 4118 State St.
- *McArthur, L. L., a, b, d, f, e, i, 100 State St.
 McArthur, R. D., a, i, n, 411 Marquette Building.
 McAuley, H. H., a, 360 Erie St.
 McCasky, G. W., a, 107 W. Main St.
 McCloud, S. B., p, 9217 Commercial Ave.
 McClure, C. F., a, 1106 Lawndale Ave.
 McCullum, J. L., d, 626 W. Lake St.
 *McCullough, J. R., d, 37 Park Ave.
 McCuaig, W. J., a, 3035 Indiana Ave.
 McCurdy, J. C., a, 2069 W. Congress St.
 McDiamid, A., f, 103 State St.
 McDill John R., d, Milwaukee, Wis.
 McDonald, J. A., i, Hegewisch, Ill.
 McDonald, J. K., p, 138 Congress St.
 McGonagle, T. C., a, 5504 Halsted St.
 McGoughey, J. A., a, 3100 Cottage Grove Ave.
 *McIntire, C. J., d, 834 Grand Ave.
 McKinley, John A., a, 2535 N. Hermitage Ave.
 McKinlock, John, a, 100 State St.
 McLaughlin, A. W., p, 9139 Commercial Ave.
 *McMartin, D. R., a, b, d, 77 Jackson St.
 McNab, M. D., b, 601 69th St.
 McWilliams, S. A., a, b, i, n, 3456 Michigan Boulevard.
- MacKellar, Milo Melville, p, Winnepeg Block.
 MacNeal, Arthur, a, Berwyn, Ill.
 Mackey, Cornelius, a, 1205, 519 Wabash Ave.
 Macy, H. C., a, b, 4554 Cottage Grove Ave.
 Mahoney, G. W., a, 100 State St.
 Manierre, C. E., a, b, f, i, 552 LaSalle Ave.
 Manierre, J. T., b, 215 Schiller, St.
 Mann, Wm. A., a, b, 70 State St.
 Marguerat, E. E., a, 80 Madison St.
 Marquis, Geo. P., a, q, 100 State St.
 Marquis, G. R., a, 70 N. State St.
 Martin, A. R., a, 732 N. Hoyne Ave.
 Martin, Eugene, a, 3919 Indiana Ave.
 *Martin, Franklin H., a, 34 Washington St.
 Martin, H. M., a, 103 State St.
 Marshall, F. D., d, 679 W. Adams St.

- Marshall, John S., a, b, 1, 36 Washington St.
 Masck, F. J., t, 606 Blue Island Ave.
 Mason, Frank G., a, 103 State St.
 *Mather, H. H., a, 7847 Wright St.
 Mathews, A. A., a, Oak Park, Ill.
 Mathews, Samuel A., a, d, n, 118 E. 53rd St.
 Matteson, Joseph, a, 1, 3166 Groeland Ave.
 *Matthel, P. H., a, 246 S. Halsted St.
 *Mattison, F. C. E., a, Stowell Block, Pasadena, Cal.
 Maxwell, W. S., a, 3129 Indiana Ave.
 Maywit, L., r, 1002 Belmont Ave.
 Maywit, M., d, Belmont Ave. & Halsted St.
 Meehan, M. G., e, 4341 Halsted St.
 Meling, N. C., d, 1, 925 Armitage Ave.
 Mellish, Ernest J., e, q, 103 State St.
 Memelsdorf, Alex, a, r, 429 Lincoln Ave.
 Menge, F., a, b, h, 34 Washington St.
 Menn, Rudolph, q, r, 15 Lincoln Ave.
 Mercer, F. W., a, n, 2540 Prairie Ave.
 *Mergler, Marie, a, d, 1, 100 State St.
 Merrill, Julia D., a, j, 520 W. Chicago Ave.
 Merriman, H. P., a, b, f, 2239 Michigan Boul.
 Messinger, Celestia, o, Central Music Hall.
 Metcalf, W. B., q, 70 State St.
 Metler, L. Harrison, a, b, 100 State St.
 *Meyerovitz, M., a, 103 State St.
 Meyers, Adolph, d, 470 W. Madison St.
 Michel, R. S., a, 689 N. Robey St.
 Michelet, Wm. E. J., a, Wilmette, Ill.
 Middleton, W. D., a, 107 E. 3rd St.
 Miller, Chas. H., a, 6349 Jackson Ave.
 *Miller, DeLaskie, a, 110 Astor St.
 Millich, E. J., b, 307 Belden Ave.
 *Miller, J. L., a, n, 100 State St.
 *Miller, Truman W., b, d, 1071 N. Clark St.
 Miller, W. E., a, 1145 S. California Ave.
 Milnamow, J. T., a, 1613 Park Ave.
 Missick, O. S., a, d, 445 North Ave.
 Mitchell, Louis J., a, d, 498 Adams St.
 Mixor, M. A., a, Larabee's Point, Vt.
 Moeller, F. H., a, Hillsboro, N. Dak.
 Monash, D. F., a, 36th & Vincennes Ave.
 *Montgomery, Frank H., a, b, d, 1, 100 State St.
 Montgomery, Liston H., a, n,
 *Montgomery, W. T., a, b, 34 Washington St.
 Moore, Emma M., j, 6025 Prairie Ave.
 Moore, F. B., a, b, Arcade Row, Pullman, Ill.
 Moore, F. O., a, 411 Oakley Boulevard.
 Moorehead, E. L., a, d, 902 W. 12th St.
 Morf, Paul F., a, c, n, 51 Claybourne Ave.
 *Morgan, W. E., a, b, e, 30th & Michigan Ave.
 Morgenthau, G. L., a, b, 34 Washington St.
 Morgenthau, George, h, 34 Washington St.
 Morrill, E. F., a, 1725 W. 12th St.
 Morris, John L., d, Clark St. & North Ave.
 Morse, Eliza R., a, j, 4356 Berkeley Ave.
 Morton, E. C., a, 6801 Union Ave.
 *Moyer, Harold N., a, b, c, d, i, l, n, 103 State St.
 Mueller, George, D, 1063 Milwaukee St.
 Muffat, Maximilian, a, Palatine, Ill.
 Mulbacher, Herman, a, Aurora Ill.
 *Murphy, J. B., a, b, c, d, e, 1, 103 State St.
 Nagel, J. S., a, 323 S. Western Ave.
 *Nance, W. O., a, 5311 Madison Ave.
 Nash, A., a, Joliet, Ill.
 Nash, F. W., a, Big Rock, Ill.
 Neeley, J. R., a, 1840 N. Clark St.
 *Nelson, Daniel T., a, 1, 2400 Indiana Ave.
 Newburgh, J. S., a, 65 Randolph St.
 *Newman, H. P., a, b, d, f, 1, 438 LaSalle Ave.
 Newton, G. W., a, b, d, 103 State St.
 Nichols, J. C., a, 5123 Wentworth Ave.
 Niles, John W., a, b, 420 LaSalle Ave.
 *Noble, W. L., a, 1, 100 State St.
 Noel, E. P., d, 577 W. Congress St.
 Norden, H. A., b, 103 State St.
 *Novak, F. J., a, t, 733 W. 18th St.
 Nutt, Fred L., a, Marengo, Ill.
 Nutting, Emmogene, o, 168 39th St.
 Oaks, J. F., a, 347 62nd St.
 Ocacek, Chas., t, 611 Throop St.
 Ochsner, A. J., a, d, e, 710 Sedwich St.
 *Ochsner, E. H., a, b, d, e, 710 Sedwich St.
 Ogden, E. Russell, a, b, 100 State St.
 Ohls, H. G., h, Odell, Ill.
 Olney, T. A., d, 1038 Jackson, Boulevard.
 Olsen, Marie, a, 34 Washington St.
 Orth, W. S., a, Schiller Building.
 Osborne, G., a, 100 State St.
 Otto, J. P., p, 368 106th St.
 *Oughton, Chas. M., a, b, 131 53rd St.
 *Owens, J. E., a, b, e, 1, 1806 Michigan Boul.
 Oyen, Adolph B., a, 801 N. Rockwell St.
 O'Connell, P., a, 339 S. Center St.
 O'Malley, T. F., a, 339 W. 12th St.
 O'Neil, J. W., a, b, 1380 N. Clark St.
 O'Shea, D., d, 470 Ashland Boulevard,
 Paddock, Chas. E., a, b, c, 2931 Indiana Ave.
 Palmer, Geo. T., j, 2600 Indiana Ave.
 Pardee, Lucius C., a, b, 34 Washington St.
 Parker, Charles A., b, d, 776 W. Lake St.
 Parker, C. W., b, 103 State St.
 Parker, R. M., a, 3359 Indiana Ave.
 Patera, F. J., t, 675 W. Taylor St.
 *Patrick, Hugh T., a, b, c, d, i, n, 34 Wash-
 ton St.
 Patrick, Z. E., b, 25 Woodland Park.
 Patton, J. M., a, b, n, 34 Washington St.
 Peck, A. H., c, 92 State St.
 Pelton, O. L., a, Elgin, Ill.
 *Pennington, J. R., a, b, 103 State St.
 Perkham, John F., a, 2459 Prairie Ave.
 Perry, H. H., p, 9217 Commercial Ave.
 *Peterson, R., a, b, c, d, f, i, 103 State St.
 Peterson, H. D., a, b, 93 E. 18th St.
 *Pettit, J. W., b, Ottawa, Ill.
 Pettyjohn, Elmore, b, d, Alma, Mich.
 Pfeifer, John P. d, 1240 Milwaukee Ave.
 Phillips, C. J., a, 401 Garfield Boulevard.
 Pierce, Norval H., a, b, c, h, 1, 723-725 Field
 Building.
 Pierron, J. J., a, 353 5th Ave.
 Pinckard, Chas. P., a, b, c, 103 State St.
 Pirash, Berthold, a, r, 340 S. Hermitage Ave.
 Plecker, Jas. H., a, a, 183 W. Madison St.
 Plummer, S. C., a, d, 4304 Lake Ave.
 Poehls, J., p, 13503 Harvard Ave.
 Porter, F. D., a, 1, 1594 N. Halsted St.
 Porter, John L., a, b, g, 25 E. 47th St.
 Porter, Robert H., a, Hyde Park Hotel.
 Post, G. W., a, n, 1987 Washington Boulevard.
 Powell, E., a, Maryville, Mo.
 Preble, R. B., a, c, d, n, q, 103 State St.
 Prendergast, Joseph, d, Lake St. & Kedzie Ave.

- Price, O. J., a, d, l, 538 W. Adams St.
 Prestly, J. P., n, 126 State St.
 Prince, L. H., b, q, Palmyra, Wis.
 Pritzker, L. J., d, 239 W. Division St.
 Pruyn, Chas. P., a, 100 State St.
 Pugh, Chas. E., a, 201 S. Halsted.
 Purdy, Chas. W., a, n, 57 E. 20th St.
 Pusey, Brown, d, 31 Washington St.
 Pusey, C. M., a, 75th St. & Drexel Boulevard.
 *Pusey, W. A., a, b, c, d, l, 103 State St.
 Pynchon, Edwin, a, h, 103 State St.
- *Quales, N. T., a, 52 Fowler St., Wicker Park.
 *Quine, Wm. E., a, b, i, n, 103 State St.
 Quinlan, W. W., a, j, q, 503 Belden Ave.
 Quirk, J. J., a, c, 103 State St.
- Radesiski, A., r, 658 Loomis St.
 Rahifs, Theo., a, r, 802 S. Halsted St.
 Rawlings, T. Donaldson, a, 92 State St.
 Redlick, Henry, a, 375 N. Clark St.
 *Reed, C. B., a, 103 State St.
 Reed, M. L., a, 320 Bowen Ave.
 Regent, M. N., d, 564 S. Halsted St.
 Reilly, F. W., a, c, Health Depart. City Hall.
 *Reynolds, A. R., a, b, 4 City Hall.
 Reynolds, G. W., a, b, f, n, 1924 Arlington Place.
 Reynolds, H. J., a, 36 Washington St.
 Rezanka, George, t, 931 W. 19th St.
 *Rhodes, John Ediom, a, b, d, h, n, 146 Central Park Ave.
 Rice, E. P., a, b, 400 Fisher Building.
 Richards, Annette S., d, 821 Warren Ave.
 Richardson, J. R., a, l, 479 42nd Place.
 Ricketts, H. T., d, 1439 Jackson Boulevard.
 Ridlen, John, b, k, l, 103 State St.
 *Ries, Emil, a, b, c, d, f, l, r, 100 State St.
 *Riese, B. L., a, b, r, 4312 Vernon Ave.
 Ritter, M. M., a, 100 State St.
 Rittenhouse, H. H., a, 5739 Rosalie Court.
 Rittenhouse, William, a, b, d, 975 Warren Ave.
 Roan, C. F., a, 691 W. North Ave.
 *Robbins, M. M., a, 15 Broadway, Aurora, Ill.
 Robeson, T. Jay, a, 2600 Calumet Ave.
 Robinson, B., a, f, 100 State St.
 Robinson, W. F., b, 100 State St.
 *Robison, John A., a, b, d, h, n, 297 Ashland Boulevard.
 Rogers, Daniel W., a, j, 2200 Michigan Ave.
 Rohr, W. R., a, 457 LaSalle Ave.
 Roler, A. H., a, 2330 Indiana Ave.
 Roler, E. O. F., a, 2330 Indiana Ave.
 *Root, Eliza H., a, d, 489 W. Monroe St.
 Rose, David, a, 1064 Millard Ave.
 Rosenberry, A. J., a, Oak Park, Ill.
 Ross, J. W., d, 925, Warren Ave.
 Reth, V., t, 555 Blue Island Ave.
 Rowan, P. J., a, 327 Adams St.
 Ruckel, J., p, 9206 Commercial Ave.
 Ruggies, Georgia S., a, 2211 Michigan Ave.
 *Rumpf, W. H., a, b, c, d, r, 472 Kenwood Ave.
 Rund, Helga, a, 497 N. Hoyne Ave.
 Ruschhaupt, H., r, 315 Larrabee St.
 Rutherford, Clarence, a, 646 Fullerton Ave.
 Ryan, L., d, 1285 W. VanBuren St.
 Ryerson, E. W., a, j, 103 State St.
- Sage, Annie White, a, 17 E. 40th St.
 *Salisbury, J. H., d, n, 982 W. Adams St.
 Sammons, E. H., a, b, 51 31st St.
 Sandburg, Karl F., a, d, f, 622 N. Hoyne Ave.
 Sauer, H. Edward, a, b, 911 Venetian Building.
 Saurenhaus, Ernest, a, r, 528 LaSalle Ave.
 Schaeffer, F. C., a, b, d, l, 582 Washington Boul.
 Schalch, Alfred, a, d, r, t, Venetian Building.
 Scheffer, C. R., a, Newton Highlands, Mass.
 Schindler, Frank S., a, 819 W. Harrison St.
 Schirmer, Alfred, r, 401 Marshal Field Ave.
 *Schirmer, Gustav, r, 625 W. Taylor St.
 Schlesinger, M. L., a, 549 N. Robey St.
 *Schmidt, F. W., a, b, 3614 Indiana Ave.
 *Schmidt, O. L., a, c, i, l, n, 3323 Michigan Ave.
 *Schmidt, L. E., a, r, 103 E. Randolph St.
 *Schroeder, William E., a, e, d, 103 State St.
 Schwab, L. W., a, 449 E. 41st St.
 *Senn, E. J., a, b, d, e, l, q, 100 State St.
 *Senn, Nicholas, a, b, e, l, 532 Dearborn Ave.
 Seville, F. F., d, 1620 W. Madison St.
 Shambaugh, Geo. E., a, h, 100 State St.
 Shaw, D. Lee, a, d, 591 W. Congress St.
 Sherwood, F. R., a, 100 State St.
 *Simmons, Geo. H., a, b, d, 61 Market St.
 Simons, C. J., a, 284 32nd St.
 Simon, Ludwig S., a, 419 E. 43rd St.
 Simpson, F. E., a, 4602 Lake Ave.
 Sinclair, J. E., b, 4101 Grand Boulevard.
 *Sippy, B. W., a, d, u, Ellis & Oakwood Boul.
 Skelton, L. L., b, 100 State St.
 Slaymaker, S. R., d, 1318 Washington Boul.
 *Small, A. R., a, b, 3035 Indiana Ave.
 *Small, Chas. P., a, b, 131 E. 53rd St.
 Smedley, N. J., a, 138 Wells St.
 Smith, E. M., a, 305 E. Division St.
 Smith, Jennie E., o, 665 Sedgwick St.
 Sogan, Valborg, a, 34 Washington St.
 Solenberger, A. R., h,
 Somers, G. H., d, 514 Jackson Boulevard.
 Spach, A. B., a, 6629 Harvard Ave.
 Spalding, Heman, a, b, 100 State St.
 Spaulding, D. N., a, 62 E. Chicago Ave.
 Springe, F., r, 649 Ashland Ave.
 St. Clair, Frank C., a, 4501 Wallace Ave.
 St. Cyr, E. D., a, 538 Ashland Ave.
 *St. John, Leonard, a, l, 537 W. Monroe St.
 Stahl, F. A., a, b, f, 103 State St.
 Stamm, J. C., a, 203 Blue Island Ave.
 Staniff, D., a, p, 8753 Commercial Ave.
 *Stanton, S. C., a, b, 912 Venetian Building.
 *Starkey, H. M., a, b, l, 3300 Indiana Ave.
 *Starkweather, R. E., a, 5151 Cornell Ave.
 Stearns, Wm. G., b, c, 103 State St.
 *Steele, D. A. K., a, b, d, e, l, 103 State St.
 *Stehman, H. B., a, d, f, 275 S. Broadway, Los Angeles, Cal.
 Stein, O. J., a, h, 100 State St.
 Stevenson, Alex F. Jr., d, 378 LaSalle Ave.
 Stevenson, S. H., a, l, 322 N. State St.
 Stillians, Daniels C., a, 103 State St.
 Stoll, John J., a, 514 W. 12th St.
 Stoner, W. D., a, b, j, 485 Fullerton Ave.
 *Stowell, Jas. H., a, b, n, 2633 Indiana Ave.
 Strang, A. B., b, d, 533 W. Monroe St.
 *Stringfield, C. P., a, 138 Jackson Boulevard.
 Stroburg, J. A., a, Burlington, Iowa.
 Strong, A. B., l, 533 W. Monroe St.
 *Strueh, Carl, r, 464 Belden Ave.

- Stubbs, F. Gurney, a, b, 576 E. 43rd St.
 Stubbs, J. E., a, b, 1, 971 W. 22nd St.
 Stulik, Chas., t, 525 Lincoln St.
 *Sudduth, W. Xavier, a, b, c, 100 State St.
 *Sullivan, T. J., a, 4709 Michigan Ave.
 Swan, Chas. F., a, p, 1, 9139 Commercial Ave.
 Swartz, T. B., a, b, 146 36th St.
 Swenson, C. G., a, 318 Division St.
 Talbot, Eugene S., a, c, 103 State St.
 Taliaferro, Frank, a, 457 S. Center St.
 Tansey, E. E., a, p, 236 79th St.
 Tebbetts, J. H., d, Hollister, Cal.
 Test, Annabel Cleveland, a, d, k, 4401 Indiana Ave.
 Thexton, Louis, a, 1044 W. Monroe St.
 Thies, W., q.
 Thilo, Geo., a, 39 Columbia St.
 *Thomas, A. L., a, b, 3046 Wentworth Ave.
 Thomas, H. M., a, b, c, d, h, 31 Washington St.
 Thometz, John L., a, d, 999 W. 12th St.
 Tice, F., a, d, 1922 Indiana Ave.
 Tichenor, W. A., a, 492 W. Adams St.
 Tillston, G. T., a, b, 6301 Wentworth Ave.
 Titzel, N. R., p, 10050 Ewing Ave.
 Tivnen, Richard J., a, 302 Garfield Boulevard.
 *Todd, J. F., a, 1, 2447 Prairie Ave.
 Topinka, Jennie Trisch, o, 2602 Indiana Ave.
 Tracy, E. E., a, 100 State St.
 Tucker, D. M., a, 441 State St.
 Tuckner, Jas. I., b, 52 35th St.
 Turck, F. B., a, c, d, n, q, 555 Dearborn St.
 Turck, R. C., c, 452 E. 49th St.
 Turck, V., t, 161 W. 12th St.
 Turner, B. S., a, 3857 State St.
 Tuteur, Edwin B., a, 3645 Grand Boulevard.
 Twining, S. D., d, n, 210 Grand Boulevard.
 Tyler, H. A., a, 92 State St.
 Unger, August M., a, 277 W. Van Buren St.
 VanBlushoten, Wm. C., a, p, Ill. Steel Co., S. Chicago.
 VanDerslice, J. W., j, 963 Park Ave.
 *VanHook, Weller, a, b, d, e, f, i, 103 State St.
 VanHoosen, Bertha, a, d, 489 42nd St.
 Van de Roovaart, J. F., a, 10236 Parnell Ave.
 VanVelser, Frances, T., a, 6059 Sillis Ave.
 Vasumpaur, J., t, 1624 W. 22nd St.
 Veach, J. H., p, 204 Cobb Boulevard.
 Verity, Wm. P., a, c, 450 Garfield Ave.
 Vincent, Mary L., 70 State St.
 Wade, Chas. A., j, 709 W. Jackson Boulevard.
 *Wagner, Carl, a, d, q, 94 Lincoln Ave.
 Wagner, C. B., a, 758 N. Halsted St.
 Wagner, Henry E., a, 551 Amitage Ave.
 Waite, Lacy, a, d, 100 State St.
 Walker, Jas. W., b, 153 E. 53rd St.
 *Walker, S. J., a, b, j, n, q, 34 Washington St.
 Walling, Willoughby, a, b, 103 State St.
 Walls, Frank H., a, c, d, n, 4307 Ellis Ave.
 Walsh, Harry, p, 88th & Mackinaw.
 Walter, Will, a, b, 103 State St.
 Ward, C. W., a, 3449 Indiana Ave.
 Ware, Lyman, a, 31 Washington St.
 Warner, A. K., q.
 Washington, John N., a, q, 236 Evanston Ave.
 Wassell, J. W., a, 1, 92 State St.
 Waterhouse, C. F., b, 103 State St.
 *Watkins, J. T., a, b, c, d, f, 93 18th St.
 Waugh, William F., c, d, 103 State St.
 Waxham, F. E., a, n, Jackson Building, Denver, Colo.
 *Weaver, George H., a, b, d, 535 Washington Boulevard.
 *Weber, Samuel L., a, b, d, f, 100 State St.
 Webster, E. H., a, 1332 Chicago Ave.
 Webster, E. M., p, 9151 Commercial Ave.
 *Webster, G. W., a, b, l, n, 76 State St.
 *Webster, J. C., a, b, d, f, l, Lakota Hotel.
 Webster, John P., a, 441 Englewood Ave.
 *Weidner, M. R., a, Dalton Sta., Cook Co.
 Weiskopf, Max, t, 608 Blue Island Ave.
 Welcker, H. C., a, r, 626 LaSalle St.
 Welcker, Paul, a, r, 626 LaSalle St.
 Wellington, Gertrude G., o, 85 Plymouth Place.
 Wells, Edward F., a, n, 4571 Lake Ave.
 Welis, Franklin C., d, n, 883 Monroe St.
 Wenzlick, Wm., a, 241 Dearborn Ave.
 Wermuth, W. C., a, 277 Bissell St.
 *Wesner, F. W., a, 603 Jefferson St., Joliet Ill.
 *Wescott, C. D., a, b, c, i, d, l, 31 Washington St.
 Wesener, J. A., a, b, c, d, 103 State St.
 West, S. G., a, 103 State St.
 Westerschulte, F. H., q, r, 1005 W. North Ave.
 Weston, E. B., f, 271 Oakwood Boulevard.
 Wheaton, C. L., q.
 Whalen, C. J., q.
 White, C., a, 380 LaSalle Ave.
 White, M. B., j, 703 N. Clark St.
 Whitford, Wm. (stenographer b), 103 State St.
 Whitmer, L. W., a, 1503 Shool St.
 Whitmore, B. T., b, 90 Maiden Lane, New York City.
 *Wiener, Alex C., a, k, 100 State St.
 Wiggin, Twing B., a, 100 State St.
 *Wildor, Wm. H., a, b, c, d, i, l, 5811 Monroe St.
 Willard, G. E., a, 470 E. 44th St.
 Willard, Rosa, a, 34 Washington St.
 Williams, Daniel H., a, 3034 Michigan Ave.
 Williams, A. W., a, 2842 State St.
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ILLINOIS Medical Journal

The Official Organ
of the
State Medical Society



A Monthly Bulletin
Edited by the
Publication Committee

Printed by
THE ILLINOIS STATE JOURNAL COMPANY.

Entered in the Springfield Postoffice as Second-Class Matter.

Volume L.
New Series, Vol. II. }
Number 8.

Springfield, Ill., January, 1901.

{ Subscription, \$3 a Year.
Single Copies, 25 Cents.

The names of members of County Societies appear in this issue, pp. 374-384.
Membership of Illinois State Medical Society, January 1, 1901, over 900.

TABLE OF CONTENTS.

ORIGINAL ARTICLES.

The Present Treatment of Syphilis—Wm. Allen Pusey, M. D., Chicago.....	339
Syphilis of the Eye—Wm. H. Wilder, M. D., Chicago.....	347
Pneumonia and Its Treatment—J. N. Black, M. D., Clayton.....	350

EDITORIALS.

Politics Versus Medicine.....	358
Amend Act Concerning Corporations.....	358
Decadence of the Sects.....	359
Meeting of the Judicial Council.....	360
Membership in the State Society.....	361
Doctors and Druggists.....	361

CORRESPONDENCE.

Illinois and California.....	366
Suit for Malpractice—J. Palmer Matthews, M. D., Carlinville.....	366

LOCAL SOCIETIES.

Vermilion County Medical Society.....	367
North Central Illinois Medical Association.....	367
Peoria City Medical Society.....	367
Pike County Medical Society.....	368
Fulton County Medical Society.....	368
German Medical Society of Chicago.....	370
Sangamon County Medical Society.....	371
Meeting of Physicians and Druggists of Springfield.....	372
—	
Legislative Committee Report.....	373
Meeting of the Judicial Council.....	361
Epileptic Colony.....	357
In Memoriam—Ephraim Ingals, M. D.....	356
—	
Roster of County Societies.....	374-3

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The Illinois Medical Journal.

The Official Organ of The Illinois State Medical Society.

VOL. L.
New Series, Vol. II. }
No. 8.

Springfield, Ill., January, 1901.

{ SUBSCRIPTION
\$3.00 A YEAR.

THE PRESENT TREATMENT OF SYPHILIS.*

BY WM. ALLEN PUSEY, M. D., CHICAGO.

The title the present treatment of syphilis is not a happy one if it conveys the impression that a new treatment is to be offered, or one presenting any radical departures from the principles of treatment which have proven their efficiency in syphilis for these many years. The fact is the treatment of syphilis is about the best illustration of therapeutic stability that medicine has to offer. Times and men change, methods come and go, but the conservative opinion concerning the essential factors in the treatment of syphilis remain practically unchanged. Although there is practically unanimity of opinion upon the general principles of the treatment of syphilis, there are still many moot points concerning the details of carrying out the treatment, and in my brief paper I shall rather try to direct attention to these points with the hope that my paper may be suggestive, since instructive it cannot be.

I take it as accepted that syphilis is a disease due to a definite organism. It is at first a local infection, having its seat at the point of inoculation. Thence the infection spreads, chiefly by way of the lymphatics, to involve the body at other points. Assuming that the disease is at first confined to the point of inoculation, the effort has been made to abort the disease at this point, before general infection occurred.

The abortive treatment of syphilis has been undertaken along two lines. First, by completely destroying the infection at its primary seat by excision or cauterization. Secondly, by the use of mercury at the first manifestation of the local lesion with the hope that the infectious organ-

isms may thereby be destroyed at the outset. Total excision of the chancre or destruction by thorough cauterization very early have, in my opinion, strong theoretical grounds in their favor. From every analogy we are forced to the conclusion that at its beginning the disease is confined to the original point of infection. There the organisms multiply and thence they find their way into other parts. In the very nature of things it is impossible to furnish conclusive evidence of successful abortive treatment, since a conclusive diagnosis cannot be made in the present state of our knowledge before the development of constitutional symptoms, and so there is ample opportunity for differences of opinion. Abundance of good authority can be marshalled on either side. I follow the opinion of these authorities, who believe that thorough destruction, preferably by excision, is based upon good theoretical grounds, and supported by clinical evidence, and should be done in suitable cases. It should be added that suitable cases are relatively few, for the reason that few cases come to us soon enough. If there is to be any hope of aborting the disease in loco, it must be done before the contiguous lymphatics are involved. The younger the chancre the better the prospect of success. It would seem that the procedure has little prospect of success when performed later than a week after the date of appearance of the lesion.

The attempt to abort syphilis by destruction of the primary lesion is not open to the objection of obscuring the diagnosis. It is pretty well admitted that the evolution of secondaries is somewhat postponed and their severity reduced by early destruction of the initial sclerosis, but there is no reason to believe that the secondaries could be prevented or obscured unless the disease was eradicated.

The abortive treatment by constitutional

*Read at the Fiftieth Annual Meeting of the Illinois State Medical Society, Springfield, May 16, 1900.

measures is based upon the antagonistic effect of mercury upon the virus of syphilis. The advocates of this method urge the increased efficacy of mercury at this stage of the disease and hope by its thorough use at the beginning to destroy the virus so promptly as to practically abort the disease. When we remember the length of time through which mercury must be given in order to stamp out syphilis, there seems little ground for believing that there is any chance of eradicating it by the internal use of mercury during the few weeks of the primary period. It does not offer the hope of successful abortion of the disease that early destruction of the initial lesion does, and it is open to the grave objection of rendering the diagnosis obscure.

This so-called abortive treatment by the early use of mercury brings us at once to the question of the use of it during the primary stage. It is admitted at once by all observers that its use during the primary stage will make the healing of the initial sclerosis more rapid, and will postpone and minimize the secondaries. There is the very objection to the method. There is no conclusive evidence that it tends to cut short the course of the disease or prevent more effectually its later manifestations. It does, however, so interfere with the symptoms of the early secondary period upon whose evolution the diagnosis must be made for it is an axiom in syphilography that a positive diagnosis cannot be made upon the initial lesions alone—that a positive diagnosis may be rendered impossible. And nothing can be more important for the individual concerned than the positive determination of the fact whether a suspicious lesion is, or is not syphilis. His conduct and treatment for several years, his social relations, the most vital affairs of his life in fact, are intimately concerned in the settlement of this question. Until vastly more weighty facts in favor of the specific treatment of syphilis before the development of secondaries can be produced than are now forthcoming, such treatment must remain in the ordinary routine of cases unjustifiable. There occur at times cases in which the needs are

so urgent to heal the chancre or get the patient under the influence of mercury that this rule may be departed from. Such cases are:

Chancres that threaten serious damage, as e. g. those about the eye.

Chancres in pregnant women; and cases when the existence of the chancre for its usual period renders almost unavoidable the infection of innocent persons.

Barring exceptional cases, the opinion of an overwhelming majority of syphilographers is that specific treatment of syphilis should not be started until the evolution of secondaries is sufficiently pronounced to permit positive diagnosis.

The treatment of the primary period should be confined to the treatment of the local lesion, and such general measures as will prepare the patient to best support the onslaught of the disease. The initial sclerosis is treated according to general surgical principles. The usual insignificant lesion requires only cleanliness and the use of some mild antiseptic application. Many lesions are sufficiently treated if washed twice daily, preferably with bichloride solution 1:2000 to 1:5000, and covered lightly with an antiseptic powder, such as calomel and talcum, equal parts, the A, B, C mixture of acid boric 1 part, bismuth sub. 2 parts, calomel 3 parts, Salol and calomel equal parts, aristol, euophen. It is not necessary ordinarily to discover your patient to all the world by the use of iodoform. If the lesions are favorably located for their use, wet dressings may be used with advantage; of these none is better for chancres than the old black-wash.

A favorite method of treating chancres in the German clinics is by covering with a small piece of mercurial plaster. Neither mercurial plaster nor the ointments afford a cleanly method of treating chancres, and they are not as satisfactory as other methods at our disposal. In cases of mixed infection the lesions may be treated by various vigorous antiseptic methods. I know no method so satisfactory as that suggested, I believe, by Keyes. The lesion is first thoroughly cleansed. Then it and the area around are carefully dried with blot-

ting paper to prevent the liquids later applied from running. Then a drop of 95 per cent carbolic acid is applied, chiefly for its anæsthetic effect, until the lesion is seared; then a drop of nitric acid until the lesion is thoroughly cauterized. The procedure is not very painful, and it ordinarily leaves a healthy ulcer to be treated upon simple surgical principles. Cases of mixed infection when thoroughly treated in this way rarely give further trouble.

While waiting for the evolution of secondaries to confirm the diagnosis certain preparation against the disease should be made. First of all, the mouth should be looked after. Carious teeth should be filled or taken out, tartar removed, and the patient impressed with the importance of scrupulous care of the mouth during the course of the disease. Frequent brushing of the teeth and gums should begin at this time, along with the use of a mouth wash like 30% Listerine in water, or weak pot, chlorate solution, in order that the teeth may be kept clean and the gums firm and healthy. The gastro-intestinal tract should also have our attention at this stage and be put in as good order as possible. For the effective administration of mercury nothing is so important as a clean mouth and healthy intestines. The condition of the skin deserves attention to the extent of seeing that it is kept in healthy condition by frequent bathing. It is probable that hot bathing, carried to excess, as it is sometimes in syphilis, makes the skin more vulnerable to syphilitic eruptions. This does not, however, apply to the tonic cool bath and the bath for cleanliness at the usual temperature. Frequently there is present upon the face a condition of seborrhœa, or better called, seborrheic dermatitis, which should be attended to, if present, in the primary stage of syphilis, since it tends to exaggerate the intensity of syphilitic eruptions of the face.

The constitutional treatment of syphilis involves first the management of the patient's general condition and second the effective use of mercury and to a less important degree of the iodides. The first of these, the management of the patient's general

condition is a question of general medicine and need not long detain us. It is a fundamental principle of the management of syphilis that the patient's general health must be put in as vigorous condition as possible, in order that the tissues may better combat the disease. The more vigorous the constitution of the patient, the better are his chances, other things being equal, in meeting syphilis, independent of the use of mercury. All departure from normal health must be corrected as far as possible, and this is done along the lines of general medicine, always remembering, however, the saving power of mercury when properly administered. In most cases, fortunately, the patient's general health takes care of itself during syphilis, if he gets plenty of mercury, but in some cases it totally fails in its battle against the disease. Then we must fall back upon rest, pure air and sunlight in the country, change of scene, freedom from exacting occupation, cod liver oil, the iron preparations, strychnine and tonics generally. In such cases nutritious and easily assimilated diets play an important role. In all cases of syphilis the diet should be simple and nutritious, varied of course in accordance with the individual condition of the patient, but in the usual run of cases the diet takes care of itself; i. e. the patient gets along well under mercury in spite of the usual neglect in this particular. In the severe cases the question of a maximum of easily assimilated food becomes a matter of the utmost importance. Here milk, as always, is our best ally, though the various methods of forced feeding have their field. The question of the use of alcohol comes up almost invariably in considering the general management of the disease. In a general way, I believe it may be said that the effects of alcohol are not peculiarly bad during syphilis, as is often stated; i. e. its effects are about the same as when syphilis is absent. In my opinion there is no ground for the absolute prohibition of alcohol during syphilis. Its use may be regulated upon the same rules as in other conditions. At times it is useful, especially in the form of the malt liquors and light

wines in whipping up a failing appetite. As to tobacco there are peculiar reasons rendering its use injurious. The use of tobacco is a most unfavorable influence upon the condition of the mouth in syphilis. So much is this so, that I believe it is wise to prohibit its use altogether during the secondary period of syphilis, although it must be confessed that many patients who persist in its use still have few mouth symptoms and are able to take their full amount of mercury.

I assume that it is unnecessary to enter into any consideration whatever as to the fact of the value of mercury in syphilis. In my opinion the man who doubts the value of mercury in syphilis is as much beyond the pale of reason as he who does not believe in vaccination. It is simply a question of the manner of administration of the drug.

The administration of mercury is usually carried out after one of three plans of treatment. They are:

1. The symptomatic treatment.
2. Interrupted treatment.
3. Continuous treatment.

The symptomatic plan of treatment consists in giving mercury only when there are active symptoms of syphilis present. If we accept the fact that the active period of syphilis extends over a year or more there seems no ground for believing that this is more than a very inadequate treatment of the disease. It is chiefly advocated by some German syphilographers and is not, I believe, advocated by any American authority. It is in my opinion a most mischievous method of treatment and deserves unqualified disapproval.

Practically the authorities of the world agree that the treatment of syphilis should be continued over a period of at least several months. And this may be carried out by the interrupted plan of treatment or the continuous. The interrupted plan consists of administering mercury over a period of a few months usually four to six, then allowing an intermission of two weeks to a month; then repeat the term of treatment with mercury alone or with mercury aided for a short time by the iodides. The con-

tinuous plan puts the patient upon $1/2$ to $2/3$ his maximum dose and keep him on it for two to two and a half years.

The differences between the plans are not essential. Probably few of us ever succeed in keeping a patient continuously taking his mercury daily without intermission for two and a half years. Both plans require that he be under the influence of mercury over an extended period.

When a positive diagnosis of syphilis is made, measures should immediately be taken to get the patient under the influence of mercury. If the disease is thoroughly and vigorously treated during the first six months the likelihood of further trouble is much lessened, so that our aim should be to produce the impress of mercury upon the disease as quickly as possible. My own plan is to put the patient upon inunctions at the outset, beginning with thirty grains of fifty per cent mercurial ointment daily; this is within a few days increased to a dram or until the teeth are touched. It may be pushed to a larger dose still if the disease does not yield. The patient is then kept on a dram of mercurial ointment by inunction for thirty days—the period for a so-called cure—and then if things are going well he is usually put upon mercury by the mouth and kept upon treatment by the mouth for the rest of the treatment, with perhaps a course of inunction for two weeks or more at intervals of three or four months. The dose of the drug by the mouth which the patient can tolerate has to be determined in each individual. The mouth being in good condition and the digestive tract also, an average dose is used at the beginning; taking for example the bichloride, which is my routine preparation, begin say with $1/12$ grain t. i. d.; increase $1/12$ grain every other day until the gums and teeth show slight tenderness, or $1/6$ of a grain t. i. d. is being given.

The symptoms of hydrargyria will usually show themselves under $1/6$ gr. bichloride t. i. d. if it is being absorbed. After the maximum is reached, recede from that dose somewhat and hold the dose there. The best evidence that the patient is getting the right amount of mercury is the

behavior of the disease. If the cutaneous lesions are fading, the anæmia improving, the sleeplessness, pains, and depression disappearing and the weight holding its own or improving we may feel sure that he is getting enough. And if the contrary is the case, during the active period of the first few months and when the general management of the case is being intelligently cared for, it is pretty sure that he is not.

Great importance should be attached to the weight in this connection; improvement in weight is a favorable sign, loss of weight, that the treatment is failing in some particular.

In case emergencies arise during the course of the disease, and they arise very rarely when the patient is assimilating mercury, my reliance is upon vigorous inunctions and exceptionally upon deep-seated injections of soluble salts of mercury. In a critical situation I do not hesitate to carry the drug to the point of pretty well marked hydrargyrim.

Such a method as I have outlined above is followed very generally by American syphilographers, each using the drug of his particular choice. Keyes carries out a treatment after this fashion calling it the tonic treatment. Using the protiodide as his standard form he begins with $1/4$ gr.; increases $1/4$ daily until the maximum dose is ascertained. Then the patient is put upon $1/2$ this maximum dose and kept upon it for two to two and a half years. White, of Philadelphia, after whose plan the treatment I outline is largely patterned, gives $1/2$ to $2/3$ the maximum dose for 6 weeks then inunctions for two weeks, and so repeats for two years, so that the patient gets mercury for eighteen months by the mouth and six months by inunctions. Taylor uses vigorous treatment with mercury for six months then if things are going well, gives a rest of one month, and repeats the course of mercury, during this second period of treatment giving for a few weeks iodides with mercury.

How long shall the constitutional treatment of syphilis continue? The tendency among syphilographers is constantly to in-

crease the period. Bearing in mind that the duration of active secondary syphilis is at least six months to a year, the conclusion seems unavoidable that active specific treatment should continue at least thus long. The weight of opinion is for at least two years thorough treatment. Fournier of late years has increased his estimate of the necessary time of treatment to four years. Most Americans, I believe, advocate two years to two and a half, giving the "mixed treatment" of mercury with the iodides during the last six months, in order to catch any budding gummatous deposits. It must be admitted that vast numbers of cases get well on far less treatment. Indeed, many get well without any treatment at all, but the risk of immediate or remote bad results is greatly increased by lack of thorough treatment. I believe that it is logical to advise, also, a period of mixed treatment for several weeks, say six, each year for many years afterwards. I am willing to say, even for life. We must remember that it is in no case possible to be sure that a syphilitic patient will never have a recurrence of the disease. And since that risk exists, a term of treatment from year to year is a measure of safety.

The manner of administration of mercury is a subject upon which a vast amount of ingenuity has been expended. It is still a field of hot combats among the advocates of the different methods. In my opinion the fact is that it does not make any great difference how the patient gets it, whether by the mouth, or inunction, or injection, as protiodide, bichloride, tannate, salicylate, blue mass, or grey powder, provided he gets it into his system. The forms most used by the mouth in the United States are protiodide, bichloride and mercury, with chalk in the order given; in England they use H. G. with chalk, and mercurial pill; in France protiodide, and there is a scattering following over the world for the tannate, the salicylate and other special forms.

One usually has his best results with the form with whose administration he is most familiar, and that fact is an argument for using as far as practicable, one salt. It is

not a good plan to change from one form of mercury to another in a case, unless some special reason for change arises.

Each of the different methods of administration by the mouth, by inunction, by injection, has its warm advocates. The routine treatment in America and England is by the mouth; in France and at some German clinics by subcutaneous injections; in most German clinics by inunction. In favor of administration by the mouth it is to be said that it is convenient and easy. It is urged against it that it is inexact. But that it is amply effective in the very large proportion of cases is proven by clinical experience beyond any room for doubt. In view of its conveniences and freedom from the objections attaching to other methods of administration it is probable that it never will be—in my view it does not deserve to be—displaced as routine treatment by any other form of administration. Intelligently conducted treatment by the mouth meets every requirement in the vast majority of cases. It may be fortified at times by treatment by inunctions; and in critical situations it may well for a time give place to injections.

Clinical experience leaves no doubt also of the efficacy of inunctions. The organism can be promptly and surely brought under the influence of mercury by inunction, and as an ally to the administration of mercury by the mouth it is a method of the utmost value. There is some preference among practitioners as to the form of mercurial ointment for inunctions. Mercury ointment made with lanoline has its advocates and is said to be more readily taken up by the skin. I have had no personal experience with the colloid mercury of Crede, but reports seem to indicate that it is not as good as plain mercurial ointment. In my experience the 50% mercurial ointment of the U. S. P., or 50% mercurial ointment made with vaseline as a base, are the best forms. I use a well made 50% mercurial ointment having vaseline as a base. It is conveniently dispensed in No. 13 capsules which hold just a dram. At the time of applying mercur-

ial ointment it is well to thin it with vaseline, if it is too stiff to rub in easily.

The advantages urged in favor of the injection of mercury are the accuracy of the method and the promptness and decisiveness of its effect. These may readily be granted without believing that the method ever will become popular as a routine plan of treatment. The methods of injection are all inconvenient, more or less painful, and, when insoluble salts are used, dangerous. These are sufficient to prevent the routine use of the method, but in rare critical situations when a prompt, sure, and decisive effect of mercury is necessary the method affords a valuable weapon against the disease. There are two classes of salts of mercury used for injection, the insoluble and the soluble. The injection of the insoluble preparations of mercury like grey oil and calomel is excessively painful, and always causes long continued painful induration, and sometimes abscesses, at the point of injection. It puts a deposit of mercury in the tissues whose absorption is uncertain and beyond control; as a result severe hydrargyria may occur, and in fact often does. Deaths from salivation and embolus are of record as a result of the method.

The injection of the soluble salts has fewer disadvantages. The dose is controllable and the method not dangerous. The usual preparation administered is a one per cent solution of mercury bichloride and sodium chloride in distilled water. Average dose 15 m. m. daily. A better preparation is the succinide, suggested by Wolff, which can be combined with cocaine. The formula used is one per cent solution mercury succinide and one per cent cocaine hydrochlorate in distilled water. Average dose 15 m. m. The injection of this solution causes very little discomfort. Injection of mercurial salts are preferably made over the gluteal region and should be made deep, the needle being driven in at right angles to the surface up to the base.

The iodides are the great adjuvant to mercury in the treatment of syphilis. The indication for the use of iodides in syph-

ilis is the occurrence of gummatous or so-called tertiary lesions. These tertiary deposits of syphilis may occur in severe cases early in the course of the disease, and then they call for the administration of the iodides. Ordinarily the iodides are not needed early in syphilis and their efficacy increases with the age of the disease. The especial characteristic of the iodides is to cause absorption of gummatous infiltrations and they are not curative of syphilis in the sense that mercury is. In America the iodides are usually administered as a routine treatment for a few months at the end of treatment. Sodium iodide and strontium iodide may be tried as a substitute for potassium iodide when the pot. salt disagrees, but ordinarily little can be done with them that cannot be done equally as well with the classical preparation. Large doses of the iodides are so frequently urged that it is not unusual to see cases over treated with iodides. When gummata threaten important structures it is imperative to push the iodides rapidly and in large doses; one may begin with 40 to 50 grs. t. i. d., and rapidly increase. For mixed treatment that is to extend over several weeks or months, and in the usual tertiary manifestations heroic doses are not needed. Quite as much may often be gained with 10 to 20 grs. t. i. d. Where patient was taking large doses of iodide to relieve rebellious gummatous lesions, I have more than once seen good results attained by taking away the iodide and putting the patient on tonics and a nutritious regimen. In the late manifestations of syphilis it is my judgment that the combination of the iodides with the mercury is more effective than the iodides alone.

There is still the large chapter of the local treatment of the lesions of syphilis which I have not touched, but I cannot hope to have your indulgence for the additional time that it would require to consider the subject, even in the incomplete way in which I have taken up the general treatment.

DISCUSSION.

DR. WILLIAM L. BAUM, Chicago: Nearly all syphilographers agree thoroughly with what Dr. Pusey has stated in regard to the time for the

beginning of antisyphilitic treatment. Personally, I differ materially from him with reference to the excision to the initial sore and its effects. For over eleven years it has been my policy in suitable cases to excise the initial lesion, not with a view to aborting or modifying the subsequent course of the infection, but as a means for the prevention of the spread of syphilitic infection to innocent individuals; also for the reason that in a short period of time the wound of the excised point heals, and it is not infrequent that a dressing is necessary in the treatment of the initial sore by other means. My experience has been such that in not a single instance can I say that the subsequent history of the case was materially modified or benefited in any way whatsoever; neither did it make any difference in the severity of the subsequent symptoms. In addition to that, I will state that in those cases where the initial sore was excised, and in which no secondary manifestations followed, I had reason to doubt the correctness of the original diagnosis. In the light of our present knowledge of what constitutes the initial sore, it is easy to see how other forms of sores of a non-specific character can take on induration to the eyes of the best clinician, can simulate a syphilitic infecting sore, and yet not be followed by subsequent manifestations.

As regards the treatment to be employed, I favor the method of inunction. By the inunction treatment we, to a great extent, eliminate the distressing symptoms of gastro-intestinal irritation which form such a prominent part of the effects of treatment by other methods. We can get larger quantities of mercury into the patient and carry on the treatment for longer periods by the inunction method than by giving mercury internally. Of course, there are objections to the use of inunctions on the score of cleanliness. These objections can be overcome by the substitution of other methods of treatment whereby it does not require direct contact or rubbing in on the skin surface the mercurial preparation. At the present time I am engaged in making experiments by rubbing large quantities of the hydrargyrum ointment (50 per cent) upon flannel, and applying between that and the skin a gauze jacket, and within a few days' time we have found considerable quantities of hydrargyrum in the urine. Some of the patients have reached the point of hydrargyrum stomatitis in order to make the treatment efficacious.

In regard to the use of the hypodermic method of treatment, it is limited to those cases indicated in the paper. There are conditions in which hydrargyrum, by means of hypodermic injection, especially of simple preparations, is of the utmost value, particularly where we desire to produce a profound impression.

As to the length of the treatment, it must vary largely with the nature of the case and the symptoms. In some cases two and a half

years will be found sufficient, in others four years.

DR. M. S. MARCY, Peoria: I am aware that it is the popular opinion among the majority of physicians, that the right thing to do is to wait from three weeks to three months before giving constitutional treatment in suspected cases of syphilis for the purpose of establishing an accurate diagnosis. If this theory is correct in regard to syphilis, it is correct in reference to other diseases.

A year or two ago I treated a woman who, I believe, had syphilis. While I did not withhold constitutional treatment entirely in her case, I did not give large doses of mercury or of the iodides, and while waiting to establish an accurate diagnosis of her case she became paralyzed and died. From that time I have changed my opinion in regard to waiting in order to make a correct diagnosis. I think we have just as much right to begin constitutional treatment when a patient comes to us with a chance the same day as we have to wait several weeks, until we are thoroughly satisfied that the patient is going to have syphilis. I believe they have syphilis whenever there is a chance present.

DR. E. L. HERRIOTT, Jacksonville: In the treatment of syphilis the constitution of the patient should be looked after. Several years ago a learned professor in the East, whom many know, made the assertion, "syphilis once, syphilis always." A number of years afterwards Professor Gregory, of St. Louis, in whom I had great confidence, taught his students that syphilis was a self-limited disease. I believe that both of these gentlemen were right, but it depends upon the constitution in which the syphilis occurred. A man of good constitution, free from other taints who realizes the condition he is in when he has syphilis, who will systematically diet himself, and use all the necessary means in his power, may get well without a dose of medicine. On the other hand, a man with a tainted constitution, with scrofula or any other constitutional affection, will require a great deal of treatment, and such treatment ought to be commenced as soon as syphilis is suspected. Suppose you have a woman whom you strongly suspect has syphilis, would you defer constitutional treatment? Perhaps she is a married woman, and inside of three or four months she may become pregnant. If you begin constitutional treatment as soon as you suspect syphilis, you may prevent the offspring from becoming contaminated with the disease. Therefore, I think constitutional treatment should be begun as early as possible.

DR. HUGH T. PATRICK, Chicago: I do not treat chancres, but I do treat cases of syphilis occasionally, and I feel it incumbent upon me to state one or two of my convictions on this subject, because I believe they are at variance with the practice of some physicians. Occasionally it comes to my lot to advise the administration of specific treatment where there is syphilis of the nervous system, or even in

cases of suspected syphilis, and I usually give mercury and the iodides. What I want to say is, that there is no such thing as a schedule dose of mercury or of the iodide of potassium. But the dose of mercury is enough, and a dose of iodide of potassium is exactly the same—enough. I know that the tolerance of mercury by different individuals varies enormously. It varies in the proportion of one to eight in some cases; that is, one adult can take, absorb, assimilate, and excrete eight times as much mercury as another adult. In my opinion, there is no means of knowing whether you are curing syphilis or not after the secondaries have disappeared, and when the manifest symptoms are decreasing or being held in abeyance. There is no means of knowing whether you have syphilis under control or not, and the thing to do is to saturate the patient with mercury within the limits of evil effect. I have seen syphilis of the nervous system develop within a few months of the chance. My observations are not at all unique in this particular; others have seen the same thing, and have observed the lesions develop during the regular administration of specific treatment by competent physicians, because they gave what is ordinarily considered good and sufficient doses of mercury for syphilis, say one-quarter or three-quarters of a grain of the protoiodide of mercury, or by inunction half a dram of mercurial ointment. I will say with all the positiveness I can, that a dram of mercury, rubbed in once a day, is sometimes exceedingly insufficient, and that a half grain, three-quarters of a grain, or one grain of the protoiodide, three times a day, is very insufficient. Keep the mouth absolutely immaculate, by scrubbing it and the teeth with a good, efficient, antiseptic, cleansing lotion, three times a day, and then salivate the patient slightly. To talk about iodide of potassium would be simply to repeat what I have said about mercury. When iodide of potassium is indicated in the treatment of syphilis or of suspected syphilis, give enough, and enough never means less than sixty grains, three times a day, and generally it means twice that.

DR. E. L. HERRIOTT, Jacksonville: In reference to the remarks of the last speaker, in my own experience I have given iron in the shape of ferri potassi, tartrate of iron and potassium, and have given more mercury while administering them without any evil effects than I could have done without them, and it has had a beneficial effect upon the patient.

DR. PUSEY (closing the discussion:.) I feel somewhat reconciled for having cut my paper short, because it has elicited a free discussion bearing on some essential details and the elaboration of three or four points I tried to bring out.

As to the point made by Dr. Baum of excising the chancre as a routine practice, but not with a view of aborting the disease, I must differ from him. The excision of the chancre the first few days after its development is,

theoretically, sound. If syphilis is not an infectious disease at the beginning, then there is no analogy between it and any other infectious disease. If it is true, the removal of the lesion, if it can be done early enough, affords a good chance for aborting the disease. There is good authority for the statement that the excision of the chancre minimizes the secondaries. It reduces the intensity of the secondaries. That question can be definitely settled. I believe we can make a diagnosis in ninety-five out of a hundred cases, while in the other five we may not be able to do so. Until we get some definite method of making a diagnosis of syphilis during the primary stage, we cannot definitely settle the question as to excision of the chancre.

With regard to inunctions, I agree with Dr. Baum that they are a most efficient and useful method of routine treatment for two and a half or three or four years. As to the length of time of treatment, it is of course variable. But in no case should it be less than two years for safety.

One of the gentlemen said that a patient might die during the primary stage of the disease. To my mind, it is utterly inconceivable how a patient can die of syphilis in the primary period without there being lesions sufficient to make a diagnosis. All syphilographers are agreed that treatment should begin with the development of secondaries sufficient to make a diagnosis. If you have a suspicious lesion, it is not necessary to wait for a cutaneous rash.

I thoroughly agree with all that Dr. Patrick has said regarding the administration of large doses of mercury and of iodide of potassium. I believe patients should take all the mercury they can assimilate.

As to the use of iodide of potassium in typical cases, I endorse all that he has said. The use of large or excessive doses of iodide of potassium for long periods will do damage. I recall cases to whom large doses of iodide of potassium were given for long periods without much benefit, and yet the disease yielded when the patients were given rest and their nutrition improved. In general, I concur in everything that Dr. Patrick has said, and I am very glad to see that there is such unanimity among us as to the treatment of syphilis.

SYPHILIS OF THE EYE.*

BY WILLIAM H. WILDER, M. D., CHICAGO.

The different structures of the eye and its adnexa are so frequently the seat of syphilis, either congenital or acquired, and the results of the disease in this part may be so disastrous unless promptly recognized and properly treated, that it was thought a

brief paper on the subject might be acceptable to this Society.

In the course of the disease no tissue of the eye or its adnexa, with the exception of the crystalline lens, is exempt, although certain parts are affected much more frequently, or more severely than others. Next to the genitalia, the fingers and the lips, the eye is the most frequent site of the initial lesion of syphilis. The hard chancre when affecting the lids is most commonly situated at the inner angle involving the caruncle. Such an infection may occur through a slight abrasion made by rubbing away a little hardened secretion. The outer angle of the eyelids may be the seat of this lesion or even the palpebral conjunctiva as was observed by me in a case about three years ago. Rarely is the ocular conjunctiva affected.

The virus may be conveyed by kissing or by the dirty practice of some kind friend with mucous patches attempting to remove a foreign body from the eye with the tongue. The induration of the affected part may be great, and there may be considerable swelling of the lid, together with chemosis and conjunctivitis. The neighboring lymphatic glands may be greatly swollen, this condition lasting for a long time. The disease might be confounded with epithelioma, but the age of the patient, the history, the subsequent appearance of secondary symptoms, and, if necessary, microscopic examination should make the diagnosis clear. The treatment would be similar to that for chancre in any other part. The lid may be affected in the third stage of syphilis by a swelling of the tarsus, which causes redness and tenseness of the skin over the part, but which is painless. It develops gradually and is accompanied by swelling of the gland in front of the ear. It is more extensive and not distinctly circumscribed as is chalazion, and gradually disappears under treatment without leaving any deformity. This must be regarded as a gummatous infiltration of the tarsus which if neglected, will result in extensive destruction of tissue and serious deformity.

Cornea: The cornea is comparatively

*Read at the Fiftieth Annual Meeting of the Illinois State Medical Society, Springfield, May 16, 1900.

seldom attacked in acquired syphilis, and then usually some time after the ordinary secondary manifestations of the disease have disappeared. I have seen several such cases in which the peripheral portion of the cornea showed a deep grayish infiltration, with no tendency to ulceration, but with localized ciliary injection and an apparent involvement of the adjacent sclera. These spots of infiltration were 2 or 3 m.m. in diameter and in the deeper layers of the cornea. In one of these cases there was a history of syphilis acquired one year before, and in another the disease had been contracted three years previously. The corneal trouble was unassociated with iritis, and disappeared slowly and only after active specific treatment. Hock and Manthner describe similar cases and Alexander has observed this condition in connection with syphilitic iritis, which usually occurs in the late secondary stage. Much more frequent is the disease of the cornea, parenchymatous or interstitial keratitis, occurring in persons with inherited syphilis. Indeed this is rightly considered one of the most important characteristic manifestations of hereditary Lues. It is a non-suppurative deep form of keratitis coming on between the ages of six and twenty years, rarely later, running a chronic course through several months and frequently complicating the deeper structures of the eye. In some cases the opacities are first noticed at the margin of the cornea, and gradually extend toward the center until the whole cornea has become cloudy. In other cases the central portion is first affected and the disease extends peripherally. Both eyes are attacked successively, and when the disease has reached its acme the cornea is so opaque that the iris cannot be seen through it and the patient is practically blind. The opacities are due to an inflammatory infiltrate into the deeper layers of the cornea, but there is no tendency to ulceration and the surface remains unbroken. There is considerable circumcorneal injection and the usual symptoms of keratitis such as photophobia and lacrymation.

Small new vessels push into the infil-

trated areas from the margin and form little vascular salmon colored patches in the substance of the cornea. In severe cases, the iris, ciliary body and choroid may be involved. After several months duration the cornea begins to clear and in favorable cases, recovers its transparency, although with bright oblique illumination, traces of the old opacities may be seen for years afterward. In a large majority of cases of interstitial keratitis, probably 70% or 80%, the cause is hereditary syphilis, but assuredly cases occur to which we cannot assign such an etiology.

Frequently there are found associated with this disease other signs of hereditary taint. The bridge of the nose may be flattened and the frontal eminences may be too prominent. Facial scars, particularly around the mouth, from old fissures may be present. The upper incisor teeth may be notched. There may be periosteal nodes or chronic synovitis. Enlarged lymphatic glands may be made out and there may be deafness, either partial or complete. The presence of one or more of these signs would help to establish the cause of the eye trouble.

As for the treatment of this condition, it must include constitutional as well as local measures. The latter would be sedative during the active stage of the disease. Warm applications, atropin and protection of the eyes from light. In the regressive stage stimulating treatment with calomel, yellow oxide of mercury ointment, tincture of opium locally may hasten absorption of the opacities.

Iris: Syphilis causes more than half of all cases of iritis. The inherited form is infrequent as compared with that from acquired syphilis. In the majority of cases of syphilitic iritis there is nothing to distinguish it from a plastic iritis from any other cause; but in from 15% to 20% of the cases the disease assumes a characteristic form which goes by the name iritis gummosa, or better iritis papulosa. In these cases one or more small nodules about 2 or 3 m.m. in diameter, of a dirty orange color are situated on the iris, preferably on the papillary margin. It was formerly

supposed that these little masses were gummatous, but as iritis is one of the secondary manifestations of syphilis, it is probable that they correspond to the papules and condylomata that are seen on the skin. Under treatment they usually disappear completely, sometimes, however, leaving an atrophic spot in the iris. There is usually a broad, firm adhesion between the iris and the lens at the site of such a little papule, and this may require most energetic treatment with atropin before it yields. This papular form of iritis is almost pathognomonic of syphilis. True gummatous tumors of the iris may occur, fortunately they are infrequent, involving also the ciliary body and choroid and by their rapid growth leading to destruction of the eye. Ordinarily syphilitic iritis develops in the fifth or sixth month of the disease, but cases are recorded where it preceded the eruptions on the skin. In the management of any case of syphilis the eyes should be carefully watched in order to detect iritis in its incipency, and to prevent the formation of extensive and firm adhesions between the iris and lens which are difficult to loosen with mydriatics after they have existed some time. If such adhesions remain, they are a source of irritation to the iris and a cause of recurrent attacks of inflammation that may prove disastrous. It is just in these cases of syphilitic iritis that the posterior synechiæ are apt to be very firm because of the plastic nature of the exudate that is thrown out. Local blood letting by leeching the temple and hot applications to the eye furnish assistance to the mydriatic in breaking away such adhesions, and such treatment also alleviates the sufferings of the patient. In a number of cases that have refused to yield to these means combined with the use of strong solutions of atropin, I have obtained good results by injecting beneath the conjuction near the cornea a few minims of a 1-1000 solution of bichloride of mercury after a method proposed some years ago by Darier. The mercury is absorbed rapidly by the eye and seems to have the effect of softening the exudate so that the mydriatic will loosen the adhesions.

Choroid: Either independently or associated with iritis or cyclitis there may develop a syphilitic disease of the choroid. Such a choroiditis may affect the equatorial zone of the eye or the posterior pole around the nerve and the yellow spot. In the latter case attention would be promptly called to the matter for central vision would be interfered with, and an ophthalmoscopic examination would reveal the lesion. But when the disease affects the peripheral portion of the choroid, it may be overlooked for a considerable time. This condition ordinarily occurs in the later stages of syphilis, and as it is not always accompanied by outward manifestations it may progress extensively before it is discovered. The ophthalmoscope shows in the choroid in recent cases numerous yellowish, irregularly shaped spots, which microscopically, are patches of round cell infiltration. Later on as these undergo absorption, atrophy of the choroid follows, exposing the sclerotic, so that the back of the eye presents the white patches bordered with pigment so characteristic of disseminated choroiditis. The disease may be, however, more diffuse and involve also the layers of the retina giving us choro-retinitis. The vitreous humor is apt to be cloudy because of minute, sometimes large floating bodies, and these help to explain some of the clinical symptoms of the disease such as impaired vision and floating specks before the eyes. Other symptoms, such as flashes of light, dazzling, disturbed color sense and micropsia may be attributed to irritation of the retina.

There is in syphilis a well recognized change of the small arteries, arteritis syphilitica, which leads to narrowing and finally to complete occlusion of their lumen. The vessel wall is so weakened that in places where there is very little outward support as in the brain, hemorrhages may easily occur. Such a change may be observed in the vessels of the retina in certain cases of syphilitic retinitis. The walls of the retinal arteries become opaque, and the lumen contracted so that the nourishment of the membrane is interfered with. There is a distinct cloudiness or haziness of the

retina, but the veins may be considerably distended. The optic nerve may appear congested and there may be minute hemorrhages into the retinal layers. In some cases there may be small yellowish plaques of exudate in the retina which may be partly absorbed or may develop into new connective tissue, giving an appearance that is described as "retinitis proliferans." There may be recurring attacks of such an inflammation, with increasing cloudiness of the vitreous humor and the sight of the eye may be lost from shrinking of the vitreous. This condition is frequently bilateral and usually comes on in the third or fourth year after the primary infection. Recently I have seen two cases where the syphilitic retinitis developed one year after the initial lesion; they yielded promptly to the active treatment employed, and the impairment of vision is comparatively slight.

Such changes in the retina, as well as inflammation of the optic nerve, are unaccompanied by outward signs, and therefore we should emphasize the importance of instructing the syphilitic patient to be on the lookout for any subjective symptoms relating to the sight so that lesions of the retina or nerve could be promptly discovered by ophthalmoscopic examination.

PNEUMONIA AND ITS TREATMENT.*

BY J. N. BLACK, CLAYTON, ILL.

Pneumonia is no doubt the most formidable foe to human life found in the whole category of ailments. At times it is no difficult task to successfully combat its ravages and launch the patient safely to port, while at others, specially during malignant epidemics they die at an appalling rate and the mortality seems to fall about equally with the most learned and average physicians. Herein I will give my views of pneumonia and its treatment, after an experience of seventeen years, with glittering phraseology conspicuously absent. And as I never wrote a paper for a society before, I trust any awkwardness herein

contained, said inexperience may at least in a measure mitigate the offence.

ETIOLOGY.

Fenkler contributes some very interesting studies, of the relation of streptococci, and influenza bacilli, to inflammatory process of the lungs. He has observed in previous epidemics, as well as recently, forms of pneumonia which he regards as due for the largest part to streptococci and specially in pneumonia attending chronic tuberculosis of the lungs. While I am aware that many of our very able writers claim the pulmonary manifestations of pneumonia are caused by the invasion of the system of a micro-organism, yet, they never have demonstrated whether it is one specific bacilli, or bacteria, or whether of more than one differing in appearance, but all effective, and if so at what period of their life most effective. My feeble brain fails to conceive of such a thing as a specific pneumonia-coccus. I believe we have more or less micro-organisms present in the human body, in both health and disease, and like "David Harem," when he said, "A certain amount of fleas are good for a dog, they keep him from forgetting he is a dog." So I think a certain amount of micro-organisms are essential in the human body. I cannot tell you what kind or quantity necessary for a physiological or pathological action. In pneumonia, whose onset is congestion, extravasation and exudation, is it not plausible that in this exudate produced in the surrounding media, germs, if present would multiply in large numbers, in this most favorable hot-bed and that after all, the disease may not cause the germ, nor the germ the disease primarily, but that its onset produces an over-production of germ element, and may not this excess germination be a factor in increasing the severity of a disease whose presence is already established. I will leave this question to be solved by the microscopist, I cannot. Many are the causes given for pneumonia, but to my mind, vicissitudes of temperature coupled with either an overcharged blood or debilitated constitution is the predisposing cause in four-fifths

*Read at the Fiftieth Annual Meeting of the Illinois State Medical Society, Springfield, May 16, 1900.

of the cases, at least in adults. In children many times I fail to find the cause, either predisposing or direct, and as in the adult, the healthy are, if any difference, more liable to the disease than the cachectic, and that croupous or primary pneumonia of children (I think no one doubts) is infectious, goes without argument, is self limited and has definite pulmonary lesions. Broncho-pneumonia is simply a secondary affection of bronchitis, measles, whooping-cough or other debilitating diseases, is indefinite, usually in both lungs and has no characteristic temperature curvation. In acute lobar pneumonia, to which I will give most of my attention, I wish to impress on your minds the predisposing causes. I find February, March and April most prolific on account of their sudden and varied temperature, also from the fact that many people, specially in a farming community, will house themselves through the winter, improper ventilation, eating rich and frequently indigestible food, little body exercise, all of which is productive of visceral inaction and torpidity of excretion; with this state of high blood pressure, it is not at all strange to me that pneumonia would result after an exposure. Again, the hard working classes who are accustomed to exposure, will get heated, stand, sit or ride in a damp, chilly air, a shock to the nervous system, chill and pneumonia results. Again it may result as secondary to some hidden lesion.

PATHOLOGY.

The pathology of this malady is so familiar to you that I will be brief. We can all agree on the fact that the essential features of pneumonia consist in a congestion and inflammation of the vascular structure of the lungs, which thereby renders it impervious to air through accumulation in its alveoli of the product of said inflammation. A sudden and considerable rise of temperature, preceded by rigor, marks of invasion, and with not many exceptions, is maintained with slight morning remissions, and evening exacerbations throughout its course until a crisis is reached. In sthenic pneumonia we have a more sudden invasion, more severe and pro-

tracted the chill, the more severe the disease, as a rule. The asthenic or masked variety, comes on less active and from its insidious nature, we are liable to be thrown off our guard. I have had them say, for two or three weeks they had a cold with some tightness or rawness of the chest, and no doubt all this time some degree of exudation was progressing, and in these cases it is usually on the interior of the lung, hence, we do not have the pain we do in sthenic cases.

I shall not attempt the differential diagnosis between lobar and pleuro-pneumonia, because, first, I do not think but few of us are able to say when there is, and is not, some pleural complication; and second, unless pleurisy decidedly predominates, I do not materially differ in treatment. As to its seat, we have single, double lobular; as to causation, idiopathic from cold and wet, traumatic from violence (which I never saw but twice), caseous or tubercular in phthisis, and typhoid pneumonia. I think we seldom see a case of chronic pneumonia except in phthisis; what we usually call such, I think, is merely an induration or consolidation following acute pneumonia as an effect, not a continuation of it. Then we have croupous or fibrous pneumonia of children, lobular or acute broncho-pneumonia and catarrhal pneumonia; the latter form is only imperfectly defined in some respects clinically, others pathologically from the acute primary form; it, I think originates either in primary bronchitis or in bronchitis secondary to measles, whooping-cough or influenza, and while principally of childhood, yet, I think some of the pneumonias of old age belong to this category, and as its name implies, is a disease preceded by catarrh, so is a secondary pneumonia. The lobular or broncho-pneumonia is also secondary and differs from acute primary sthenic pneumonia, in that the consolidated nodules are usually scattered through tract of lung tissue, said nodules varying in size, and coalescence may occur until larger tracts are invaded. Hartshorn says: "The inflammatory changes often commence in portions of collapsed lung and that both

lungs are very frequently and simultaneously affected." It is secondary to bronchitis, predominates in early life and more fatal about the period of dentition. The mortality is much greater than that of acute primary pneumonia. Bartels says: "The mortality is to the fifth year, 39 per cent, and after the fifth year, 37 per cent." In acute, primary or sthenic pneumonia, we have a shock from exposure to cold, wet or other causes, dislocation of the circulating medium, congestion and engorging of a part of one or both lungs, usually one, an apparent local disease with systemic disturbances and beginning of exudation, bronchial cough with little expectoration, beginning of dyspnoea and fever. Crepitant rale and very slight percussion dullness, this briefly told is the first stage. The second stage is that of exudation and red hepatization, during which, we have solidification of lung tissue, dullness on percussion, bronchial respiration and bronchophony, rusty colored sputum, rapid breathing and high fever. In the third stage, we have softening of the inflammatory products of gray hepatization, dullness on percussion, leaving if favorable, and return of fine crepitation, unfavorable of purulent brownish or prune juice sputum and coarse mucous rales. I have found acute pneumonia, not only more prevalent in the plethoric and healthy, but also more fatal, and the lower lobe of right lung the most frequent seat, that during stage of consolidation, chlorides are absent in the urine, that cheek flush is more pronounced in apex inflammation, that the pathological anatomy and physical signs of acute pneumonia of children does not vary but little if any, from that of the adult, that one attack rather predisposes to others. That the severity of the onset as a rule, will guide our prognosis, has many exceptions. That the maximum temperature is reached by the second or third day usually, and the crisis from the sixth to seventh, that the more pure cold air the patient gets to breathe, and refrigerate the inflamed tissues, as well as oxygenize the blood, the less oedemic tendencies, and safer progress to a favorable termination.

That cessation of expectoration in second or third stage is of grave import, and that death results from paralysis of thoracic organs, specially the heart, or from asphyxia.

DIAGNOSIS.

The three diseases, acute lobular pneumonia is most liable to be confounded with, are pleurisy, pulmonary oedema and acute phthisis. In pleurisy, pain from sharp to excruciating, in pneumonia, dull. In pleurisy, breathing is rather faint, in pneumonia, high pitched.

In pleurisy, during effusion, intercostal spaces are obliterated and often much bulging of affected side with visceral displacement, all of which we do not have in pneumonia. In pleurisy, we have no chest rales, temperature is irregular with slight fever. Pulmonary oedema, a disease consisting of transudation of serum into air vesicles, presents many points of similarity to the first stage of acute pneumonia, but, we cannot well be mistaken, when we remember that in the former disease it is usually chronic and associated with other dropsies and organic lesions; distributions of coarse rales over both lungs, frothy sputum, absence of fever and cyanotic lips. In acute phthisis, when it is attended by, or commences with, a rapid or extensive pneumonic infiltration, the diagnosis, I believe, is practically impossible during the early stages from acute pneumonia. The pyrexia of acute phthisis, is more irregular and more marked remissions than that of pneumonia, exacerbations often occurring at varying periods of the day, which is an extreme rarity in pneumonia. Sinking under left clavicle, hectic, rapid emaciation, excessive night sweats and mucus or bloody sputum, are also symptomatic of phthisis. "Louis believed, that implication of the anterior and superior parts of the lung, without the invasion of the whole apex, was almost certainly an evidence of tuberculosis". When phthisis is attended only by the disseminated formation of miliary tubercles, its diagnosis from acute pneumonia, is rather easy, owing to the absence of percussion dullness. We have one

symptom pathognomonic and diagnostic of acute lobar pneumonia which I have never known so distinct in any other disease and that is the much greater frequency of respiration, over pulse rate.

PROGNOSIS.

Uncomplicated primary croupous pneumonia in healthy children, I find is not often fatal, and usually leaves the lung in a fairly good condition. Broncho-pneumonia being associated with, or a sequel to other diseases and coupled with a bad constitution, is much more grave than the former. In this form, specially under five years of age, the mortality is very heavy, almost, if not quite half of the cases proving fatal. I believe many deaths attributed to "bronchitis," were acute broncho-pneumonia. Following whooping-cough and measles it is exceedingly grave. The rule is, the more extensive the inflammation so the gravity of the case. I have found a temperature of over 105 F., if long maintained, very unfavorable. Collapse, if accompanied by a marked decline of temperature and considerable lividity, is the gravest of all symptoms which are liable to happen in the course of this disease. The child's power of resistance, amount of nourishment retained, action of stimulants and condition of pulse, must guide us in our prognosis; children under six, do not expectorate.

TREATMENT.

It is impossible to formulate a precise line of treatment for this disease, in my opinion. I treat each case upon its own merits, meeting symptoms as they arise. The environment of the patient and the idiosyncrasy must be considered. I think we should use those remedies whose physiological action is diametrically opposed to the conditions found in the different stages of the disease.

Can pneumonia be aborted? I am inclined to say no, though I believe this question is a somewhat difficult one to decide. After hyperemia is fairly advanced, the chances to abort it by therapeutic measures, blood letting included, is enshrouded in some doubt. Admitting that there are a

few cases that point to pneumonia, and all symptoms subside after using the so-called abortive treatment; but in these cases, what proof do we have that active hyperemia or congestion of the same type that we have in acute pneumonia, is present; I think we all understand that congestion of the lungs is not necessarily followed by "pneumonic fever." I had a case about three months ago, male, eighteen years old, plethoric and healthy, which on examination I pronounced in the first stage of acute sthenic pneumonia; I thought my examination portrayed every symptom pronounced. Sudden and severe chill, severe pain in the right lung. In three hours temperature was 103, restless anxiety, short cough, and accelerated breathing; sputum scant, glairy mucus. I saw the case earlier than we usually do, and gave at once 10 grain of calomel, hot mustard-water bath to knee, placed him in bed and applied mustard from foot to knees, stopping short of blistering; turpentine stupes, hot over affected lung, and skin hot and dry; when chill was subsiding, gave three drachms spir. mindererus with one drop Norwoods tr. veratrum to limit the effusion which I believe veratrum will do, if used early enough, but after effusion is once established, I do not believe it possesses any special power to arrest pneumonic inflammation; it is too dangerous a drug to be used by any one but the physician, and by him under caution and only at the onset, for a few doses. To hasten catharsis, I gave two hours after the calomel, one tablespoonful of salts with good results; repeated veratrum and mindererus every two hours for three doses. (I omitted that I gave two grains dovers powder every two and one-half hours, for three doses, to mitigate pain and cough.) Continued mindererus (leaving off veratrum after the third dose) while temperature remained. Patient made a spontaneous recovery, and on the third day drove to town. In this case I certainly was mistaken in my diagnosis; had pneumonia really been present, it certainly would have passed through its gradations.

I will give you my treatment for only three forms of the disease, and those rather incomplete, as time for each paper is short and the subject practically exhaustless.

Croupous-pneumonia, broncho-pneumonia, and acute-lobar-pneumonia of the adult. In croupous-pneumonia of children, I secure as large and well ventilated a room as possible and prefer one on the south part of the house, moderate light and as body temperature elevates, I cool the air in the room, if possible, in proportion; enjoin quiet, as nervous agitation is an accompaniment of this disease. I have them turned rather frequently to prevent pulmonary stasis and collapse of lung tissue; water, freely and often is grateful; if much nausea or emesis, I gave small spicula of ice for a short time. It will help to cool the fever and relieve the nausea. In the very young, I use ice in thin sack for the nurse to let them suck in case of troublesome nausea, locally I use water sponging, cold to head, tepid to face and limbs. My therapeutic measures in ordinary cases are limited. At onset I give, say we have a four-year-old, one grain of calomel, followed if necessary by some laxative, after moderate catharsis I leave it off. For hot, dry skin and high temperature, more water locally and internally. Some cases may require a more antiphlogistic treatment, but ordinarily, one drachm spr. mindererus every hour or two is sufficient; it not only opposes fever, but is a stimulating expectorant and diaphoretic. If much restlessness exists, small doses of paragoric, dovers powder or ipecac, as symptoms may demand. I never use quinine unless there are malarial complications, because all we can expect of it is refrigeration, and in sufficient doses creates too much nervousness. I never bleed them and veratrum, aconite and the more powerful antiphlogistic measures I have never had occasion to resort to; lemonade and fruit juices I give until fever declines; I do not bother with nourishment in the first stage, as they usually absolutely refuse, and well they do. From later stage, I give milk diet. Twice daily during febrile stage I bathe chest and bow-

els with weak ammonia, soda or salt water to cleanse the skin and favor evaporation, tepid to warm, avoiding the two extremes. I find it very comforting. I keep a light woolen jacket, fit it snugly on the chest through the disease; if much pain, a warm poultice of flax meal or hops will aid its mitigation. If prostration is severe, brandy, spir. ammon'aromatic, diluted, or the carbonate with senega or digitalis. Their recovery is usually uneventful. Now as to secondary or broncho-pneumonia: In its treatment we must always keep before us the fact, that in the vast majority of cases, it is a secondary disease whose existence and origin indicate weakness, which fact is true of all forms of pneumonia originating in collapse of lung, and I believe is much the case when the pneumonia results by direct extension of inflammation from the bronchial membranes as from measles and diphtheria. Knowing these facts, we must scrupulously avoid any remedy that will depress the powers of life. In the early stages I give small doses of calomel or epsom salts to gentle catharsis only. The expectant treatment is the best with nutritious food. If much dyspnoea, abundant chest rales with difficult expectoration. Ipecac to emesis is the thing by all means; it cleans the tubes, frees the labored breathing and its weakening effect quickly overcome; it loosens the secretions and overcomes cyanosis; it can be used as frequently through the disease as occasion demands. If cough is severe enough to threaten collapse, I use very cautiously small doses of opium. If following whooping-cough, to diminish the spasmodic violence, ammonium bromide or opium. If feeble pulse, carbonate of ammo. and senega. If marked prostration, brandy is eminently proper and begin with in an infant, five drops in sweetened water every hour and increase until a decided effect results. Give milk in small doses, but often. I have a few times used ext. of beef, egg and whiskey, per rectum, until prostration was overcome sufficiently for mouth feeding. To the chest I use hot whiskey diluted, sometimes mustard during prostra-

tion; I never blister or poultice in this form of disease. During the active stage to lower fever, I use cool water, bathing or sponging to all hot surfaces. In country practice, I am opposed to the cold pack or chest chilling, on the grounds that it is too much shock to a child who is already nervous, and again, the prejudice existing to the cold pack is no inconsiderable factor in a country practice; I am not in favor of warm air when fever is up; I like cool fresh air; it is more invigorating and refrigerating. In our locality, we do not fortunately have much broncho-pneumonia. Draughts of air I would avoid, restore wasted energies during convalescence by ferruginous tonics—quinine and wine.

ACUTE LOBAR PNEUMONIA.

Treatment: In sthenic cases, if I can get at them early enough, which I seldom do, I use drop doses of *tr. veratrum* every two hours for two to four doses, with the hopes of limiting congestion and effusion which I believe it has the power to do. I have in a number of cases had good results with 20 drops of squibbs ergot every two hours for five or six doses (these were cases following influenza,) it possesses the power to contract the dilated arterioles and decreases the capillary stasis. I give good dose of calomel and push to catharsis with epsom salts, thereby unloading the liver and bowel, which removes pressure from lungs, stimulates emunctories, arouses secretion, thereby removing effete products and lessens fever process. In severe pain denoting pleuritic involvement, I use dovers powder, just enough to check the harassing part of the cough (because the hacking cough early in the first stage expectorates little) tranquilize the restless anxiety and soften the full bounding pulse, but never give to that extent to mask symptoms or lock secretions; the ipecac moistens skin and prevents checking of secretions.

My recent experience in this disease warrants me in saying, cold fresh air is valuable. The more severe the fever, the colder the air; I keep the body protected,

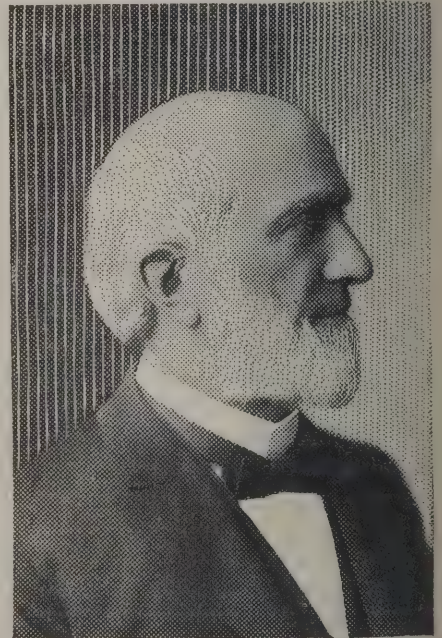
but face exposed to 40 degrees F., when the temperature is 105 F., or over if I can get it. Shut it off, and they beg piteously for it. Why? Simply because it is more pure, containing more life, giving invigorating oxygen, allowing deeper respiration, refrigerating disease and over heated tissues by actual contact, and is like, as it were, an oasis in the pneumonic desert. I sponge chest, face and limbs with water, ranging in temperature like the air treatment, coldest to head, warm to feet. Of course we must be guided to some extent by the idiosyncrasy of patient. I have abandoned the cold pack, as I have not been successful with it; in the hospital it may and perhaps is, the proper thing, where the physician is always in the house or a trained nurse. If much pain, in some cases the flax poultice gives much comfort. Mustard from foot to knees will return some of the dislocated blood to the lower extremities. Two to four drachms spr. of *mindererus* every two hours I find usually sufficient to moisten skin, soften pulse and reduce fever. Do not use aconite unless pyrexia borders on the desperate 105 F. Never use coal tar derivatives as they depress heart. I find in epidemic pneumonia following influenza, occasionally a case with head pain, severe engorgment, dusky diffused redness of the face, threatening suffocation that early venesection of 8 to 12 ounces the proper thing, but general venesection I am opposed to, as it is, in my opinion, too depressing, delays convalescence, only gives temporary relief and removes the pure blood with the impure, notwithstanding what Doctor H. J. Parker in his recent work says: "Venesection, timely and in reason performed, will injure no case, whatever the strength, size, complexion, constitutional condition or complication, no more than a nose bleed." We are all too liable to have a pet line of treatment to follow out and I think, stick to it at times too closely; we must study the patient as well as the disease and apply remedies accordingly. Again, I favor the use of a good sized blister in many severely acute cases at onset, over diseased tissues.

If severe pain is present, or very rapid breathing, they are indicated. I find they relieve the pain and not deceptively produce exosmosis and relieve engorgement, opposing the very condition present. They are also useful in the later stage to assist in the liquefaction and absorption of inflammation products. If viscid expectoration, I use alkalies, if scanty, ipecac. If feeble heart in later stage, alcohol, ether, Sp. Am. Ar., whiskey, digitalis, strychnia, turpentine, senega, warmth to body and nutritious diet, all of which are either directly or indirectly heart tonics and can be used as condition warrants. In first stage or active stage, I give no food; I find in second and third stage the carbonate of ammonia a valuable expectorant, eliminated by the lungs, stimulates secretion, liquifies and removes obstruction from air sacs. I believe pneumonic panaceas an absurdity. Dr. Wm. Parker, of Mt. Sterling, Ill., says: "I fortify heart from beginning with strychnia, never use antipyretics, use dovers powder for bronchial irritation and secure rest. In all adults I blister, keep hot water bottle to chest continually and have more than ordinary success." In ordinary cases I use light woolen jacket to chest, fitting it snugly for support and protection, specially in children. In asthenic pneumonia my treatment is principally supportive with cold fresh air. Complications in any pneumonia must be met as they arise in accordance with the environments and actual condition of the patient. I do not succeed in carrying all my cases to a favorable termination by any means, and in fact I am not at all satisfied by any treatment, which is to my knowledge employed, and I have used from heroic to almost no medication, and my conclusion is very moderate antiphlogisticism.

I have no records, but would say in acute asthenic pneumonia I lose about 12 per cent, in drunkards, about 20 per cent. Broncho-pneumonia of young children, one in six have proven fatal. Have had only two cases following measles, one of which was fatal. Have never had to my recollection but fifty cases of croupous pneumonia, all of which recovered.

IN MEMORIAM.

The editorial committee has been endeavoring for some time to secure photographs of all the ex-presidents of the State Society with sketches of their lives for publication in the Journal. Many of these leaders are unknown to the present generation of practitioners and their heroic efforts in the cause of organized medicine in Illinois we believe should be perpetuated in the



EPHRAIM INGALS, M. D., CHICAGO.
President Illinois State Medical Society, 1880.

archives of the Society. The task has been a difficult one, and before the list has been completed we are called upon to mourn the loss of one whose memory is most precious to those who had the privilege of knowing him.

Ephraim Ingals died at his residence, 4753 Grand Boulevard, Chicago, December 18, 1900, at the age of 78 years.

On November 13, 1900, Dr. Ingals sent his photograph with the following autobiography and letter which we publish in full:

"Among the company that migrated

from England with John Endicott and settled in Massachusetts in 1628 was Edmund Ingals, and from him all in America, who have borne the name of Ingals, have descended. Of this number Ephraim Ingals, the youngest of his parents nine children, was born May 26, 1823, in Pomfret, Conn. He was left an orphan and turned adrift on the world when but eight years old. In 1837 he came to Illinois. The State then had but few schools, and in these he picked up a limited education—both literary and medical—as best he could. He graduated from Rush Medical College in February, 1847, and immediately commenced practice in Lee county, Ill. He removed to Chicago in 1857, where he continued his professional work until failing health obliged him to relinquish it. He was associated for a time with Dr. Daniel Brainard in editing the *Northwestern Medical and Surgical Journal*, and later with Dr. De Laskie Miller. In 1859 he was appointed to the chair of materia medica and medical jurisprudence in Rush Medical College. He was once president of the Illinois State Medical Society, and three times of the Chicago Medical Society. He was an early and active agent in the efforts to increase the requirements demanded of those who sought admission to the medical profession in Illinois, and was much gratified by the great success achieved in this important work."

For many years Dr. Ingals was closely associated with the development of higher medical education in Chicago; both as a lecturer in and contributor to the medical institutions of the city. At the time of the affiliation of Rush Medical College with the University of Chicago he gave \$25,000 to found a chair of therapeutics and preventive medicine. He also gave \$10,000 to the Northwestern University medical school for the equipment of its laboratories.

COLONY FOR EPILEPTICS.

The State Board of Public Charities has made two reports to the executive re-

garding the proposed colony for epileptics, provided by the last session of the legislature. The majority report, signed by R. D. Lawrence of Springfield, President of the Board; Lafayette Funk of Shirley, and Miss Julia C. Lathrop of Rockford, favors the purchase of Notch Cliffe, the summer home of Mrs. Lucy V. Semple Ames of St. Louis, and Eliestoun, the summer home of Henry S. Turner of St. Louis, both located near Elsah, Jersey county, on the Chicago, Peoria & St. Louis railroad.

The minority report, signed by Ephraim Banning of Chicago and Robert Bell of Mount Carmel, favors the purchase of property at Grand Du Tour, near Rockford, on Rock river. Both reports recommend an appropriation of \$350,000 by the General Assembly, \$100,000 to be for the purchase of sites and the remainder for the erection of buildings and maintenance for a year.

The majority report cites the fact that the Board has the option on properties near Elsah for \$100,000, and that there are two fine summer residences, large stables, and smaller farmhouses on the tracts, and both have macadamized roads, the improvements having cost \$80,000, and being worth at least \$40,000 to the State, while there are 1,630 acres of land, whereas the Grand Du Tour property, which will cost the State \$78,000, has no improvements.

Members of the Society who are interested in this subject will do well to begin active work in behalf of the institution as we are informed that the prospects for an appropriation by the coming legislature are not considered very flattering.

We deem it a justice to Dr. E. J. Brown, of Decatur, to say that by an error of the Society's stenographer it was made to appear that he discussed the paper by Dr. Church on the "Bromide Treatment of the Morphine Habit" at the last meeting of the State Society, when another Dr. Brown was intended. This correction is necessary from the fact that the latter gentlemen in his discussion reported a case of the morphine habit in a member of his own family.

The Illinois Medical Journal

PUBLISHED MONTHLY.

Official Organ of the Illinois State Medical Society.

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The Society does not assume responsibility for any statements or opinions published in this journal.

Entered at the Postoffice at Springfield, Ill., as second-class matter.

Springfield, Ill., January, 1901.

POLITICS vs. MEDICINE.

What promises to become an interesting question of medico-political appointments in this State is the removal by Gov. Tanner of the president and secretary of the board of trustees of the Illinois Charitable Eye and Ear Infirmary. The public press is filled with the history of this episode and the facts as stated are briefly these: In the appointment of the staff of the Eye and Ear Infirmary, the trustees have endorsed the merit system, and appointed Dr. James R. Davey, surgeon in chief of the ear, nose and throat department of the institution. The doctor has been faithful in his services, has done a great deal to put the institution in the ranks where it belongs and assisted most materially in making it perhaps the model one of its kind in this country. Gov. Tanner peremptorily commanded the trustees to dismiss him and designated his successor. Dr. J. W. Pettit and Dr. L. F. Lambert, the trustees above mentioned, refused to make such removal in the absence of any charges of incompetency or inability to perform his duties, while on the contrary they represented to the Governor the faithful services of Dr. Davey, and further stated that by reason of the virtues above

mentioned and of the merit system introduced, they could not in good conscience adopt such action. They preferred to hand their resignation in, rather than to be compelled to be the first to violate the rules they had so long and assiduously striven to have adopted. The Governor accepted their resignation.

The dropping of this axe at one fell stroke, descending as it does upon the necks of two physicians who have labored faithfully and continuously for the recognition of a high standard in medicine and all this without pecuniary compensation, presents the condition of medicine subservient to political ambition. Has the profession of medicine in this State no rights? What is the remedy? Has not the profession sufficient strength to resent such treatment?

W.

AMEND ACT CONCERNING CORPORATIONS.

At last has the strong hand of the law descended upon a famous diploma mill.

On Dec. 15, Judge Kohlsaat, in the United States District Court, imposed a sentence of one year in the DuPage county jail and a fine of \$500 on James Armstrong, President of the Metropolitan Medical College. This is a fitting culmination of the illegal methods adopted by this college of issuing diplomas under a charter of the State of Illinois. This college is said to have turned out annually one thousand diplomas and the evidence submitted at the trial showed that many of the alleged doctors had never dissected a human body and knew nothing at all of anatomy. It is to be regretted that there was not sufficient law in Illinois to revoke the charters in a way that would prevent their continuation. Under the present act concern-

ing corporations it is an easy matter to procure charters, but to revoke the same involves a great deal of expense, besides a great waste of time. It takes about two years to go through the courts to compel the revocation of a charter. As was stated at this trial, the officers of the Metropolitan Medical College had in reserve nine other charters which they proposed to act under as soon as one was revoked. This famous bogus diploma mill began business under the name of the Illinois Health University in 1895. Two years later the charter was revoked. The college was immediately re-organized as the Independent Medical College, the charter of which was revoked a year ago. They then opened under the name of the Metropolitan Medical College. It is understood that the next charter under which they will operate will be the Scientific Medical College, and so on ad infinitum ad nauseam.

The efforts of the State Board of Health having proved futile, the United States government was called upon for assistance and the present conviction is the result of using the mails for fraudulent purposes.

To prevent any such recurrence in the future, the present act concerning corporations, should be amended by the following provision:

"Provided, that the attorney general may file a bill in chancery in the name of the People of the State of Illinois, against any corporation authorized to confer degrees, diplomas or other certificate or certificates of qualification in the science of medicine, pharmacy or dentistry, which conducts a fraudulent business or abuses, misuses or violates the terms of its charter, in any court having jurisdiction of the corporation and subject matter of such bill, for an injunction to restrain said corpora-

tion from conducting its business fraudulently or abusing, misusing or violating the terms of its charter, and also for the dissolution of said corporation, and thereupon it shall be the duty of the court in which said bill is filed to grant such injunction and to hear and determine the same as in other cases in chancery."

We trust that our legislative committee will take this matter in charge and be successful in having it adopted. W.

DECADENCE OF THE SECTS.

At the beginning of a new century it will not be without profit to consider the remarkable change in theory and practice which has taken place since the first law regulating the practice of medicine was enacted. It is less than twenty-five years since the first annual report of the Illinois State Board of Health was issued, and Dr. Rauch said: "As nearly as can be ascertained about 3,600 non-graduates were practicing medicine in the State when the medical practice act went into effect, July 1, 1877." Those of us who remember the practitioners of the pre-historic times, know that a large per centage of these non-graduates practiced on sectarian lines. They were either men who were in the habit of gathering roots and herbs and practiced botanicism (eclecticism), or others who had read Hahnemanns works, bought a supply of numbered pellets and practiced homeopathy by giving these numbers to fit the symptoms. Before the law was enacted it is reasonable to suppose that not more than 65 per cent of practitioners were regular. The passing of the law caused a scattering among these dozens of hundreds. Many of them fled the State, others hastened off to medical schools and about one thousand took advantage of the ten year practice clause and remained. At

the end of the first year July 1, 1878, Dr. Rauch reported that 4,950 licenses to practice had been issued. Of these 3,646 or less than 75 per cent were given to regulars, 493 or nearly 10 per cent were given to eclectics and 437 or nearly 10 per cent were given to homeopaths. The remainder were unclassified, and consisted of physio-medicals, baunscheidtists, Indian doctors, snapping doctors, electric doctors, etc.

In 1880 the first register of physicians in Illinois was issued.

In order that we may simplify the figures and bring statistics down to the latest date we will confine our statements entirely to the city of Chicago, with the exception of stating probable statistics in the State in conclusion. In 1880 there were 858 practitioners of all schools in Chicago, of these 637 or about 74 per cent were regulars, 146 or 17 per cent were homeopaths and 75 or nearly 9 per cent were eclectics. An editorial in a recent issue of the Journal of the American Medical Association states the number of practitioners of all schools now in Chicago to be 3,381.

Of these 2,632 or 77.87 per cent are regulars, 558 or 16.53 per cent are homeopathic and 191 or 5.64 per cent only are eclectics. In twenty years the regulars have increased 400 per cent, the homeopaths 380 per cent and the eclectics only 280 per cent. To put it in another way we may say that the regulars have made a net gain of 130 practitioners partly at the expense of the homeopaths, but largely at the expense of the eclectics. It is well known that homeopathy has its greatest development in the large cities. It is therefore reasonable to suppose that the per centage of regulars in the State is much greater than in Chicago, and can not be made less than 84 per cent. The homeopaths will probably have about 9 per cent

and the eclectics about 7 per cent in the State at large.

This remarkable change is even more clearly shown by a comparison of the matriculation in the Chicago medical schools. In 1882-83 the writer was employed by the secretary of the State Board of Health to compile the statistics of the medical colleges at which time there were in all the schools of Chicago 1,492, of which there were in the regular schools 923 or 60 per cent, in the homeopathic 422 or about 30 per cent and in the eclectic 147 or 10 per cent. In 1900 the figures are all schools: 3,408 of which there are regulars 2,648 or 77.7 per cent, a gain of at least 17 per cent over 1883, homeopaths 659 or 19.3 a loss of 11 per cent, and eclectics 101 or 3 per cent, a loss of 7 per cent, compared with the attendance in 1882-83.

Nothing could more clearly indicate that sectarianism in medicine has long since reached its highest development and the indications are very apparent that long before the new century has reached its first quarter, the old lines separating practitioners will be obliterated. Whether the new conditions will be better remains to be seen.

K.

MEETINGS OF THE JUDICIAL COUNCIL.

The Judicial Council has been giving thoughtful attention to the duties imposed upon it by the State Society at its last session. Besides carrying on an extensive correspondence between the members of the Council itself, and the officers and members of the State Society an informal conference was held at LaSalle, December 4th with President Cook, Secretary Percy and Members Ensign and Will and President Kreider and Secretary Weis, of the State Society present. It was agreed that a meeting of the Judicial Council should be

called at an early date at a time when a conference could be obtained with Governor-elect Yates. This meeting and conference was held at Springfield, December 18th.

The minutes of the meeting will be found in another column. Those who are acquainted with the existing conditions will agree that the action taken by the Council is the best possible, under the circumstances. At any rate the high stand taken by the Council will undoubtedly have much influence with the incoming executive, disposed, as he expressed himself, to have his administration mark an era in the history of the State. It is to be hoped that the action of the Council on behalf of the State Medical Society, will result beneficially to the eleemosynary institutions and the Boards regulating the medical affairs of Illinois.

MEMBERSHIP IN THE STATE SOCIETY.

For the information of all concerned, it must be emphasized that only those persons who are in good standing in a local medical society (city, county or district) are entitled to membership in the State Society. Several gentlemen who have attended the meeting of the State Society and paid a year's subscription to the Journal seem to be laboring under the impression that they have thereby gained membership. This is a mistake as shown by the foregoing statement. Heretofore it has been difficult to identify the members with their local societies. The publication of the membership of the local societies in the December, January and February issues of the Journal changes this and enables the officers to locate the members and form a judgment as to their standing in both the local and State societies.

K.

DOCTORS AND DRUGGISTS.

In the report of the meetings of the Sangamon County Medical Society will be found the minutes of two joint meetings of the physicians and druggists of Springfield to confer over matters of mutual interest. Springfield is known as a prescription city, very few of the physicians carrying a stock of drugs. Notwithstanding this state of affairs manifestly advantageous to them it appeared that in many instances the druggists and their clerks had been in the habit of counter prescribing. Many physicians were disposed to protect themselves by laying in a stock of drugs. Under these circumstances a meeting was called and finally an agreement was reached satisfactory to all concerned. Physicians and druggists in other cities where a similar condition exists will do well to consider the conclusions reached in this city.

K.

MEETING OF THE JUDICIAL COUNCIL.

Springfield, Ill., Dec. 12, 1900.

A meeting of the Judicial Council called by the chairman, Dr. E. P. Cook, met at Springfield, Ill., Dec. 12, 1900. The following members of the Council responded: Drs. Will, Mitchell, Reat and Percy. This number not being sufficient to constitute a quorum, an informal meeting was held in the office of President Kreider, at which the above named members were present.

A telegram was received from Dr. E. P. Cook, chairman of the Council, in which it was stated that illness would prevent his attending any of the sessions of the Council.

Questions relative to the important matters to be considered by the Council on the morrow were discussed when a sufficient number to constitute a quorum were expected to be present.

Springfield, Ill., Dec. 13, 1900.

The following members of the Judicial Council of the Illinois State Medical Society met in the parlors of the Leland Hotel at 10 A. M. in response to the call of Dr. E. P. Cook, chairman: H. C. Mitchell, Carbondale; I. J. Harvey, Griggsville; J. J. Reat, Tuscola; C. E. Black, Jacksonville; D. W. Graham, Chicago; O. B. Will, Peoria; J. F. Percy, Galesburg. Dr. Geo. N. Kreider, President of the State Society, was also present. On motion of O. B. Will, D. W. Graham, of Chicago, was made chairman pro tem. The minutes of the previous meeting of the Council held in Springfield, May 17, 1900, were read by the secretary, J. F. Percy, and approved. The call for the meeting as sent out by the chairman, E. P. Cook, was read by the secretary.

The instructions given the Judicial Council by the State Society at the Springfield meeting which made the session of the Council necessary were also read by the secretary. They were as follows:

"Recommendation. That the Judicial Council of the State Medical Society be authorized to present to the Governor a list of physicians eligible to appointment on the State Board of Health, and to all other offices in the State to which physicians are usually appointed by the Governor. The Judicial Council to be guided in their recommendation by suggestions of local medical societies in good standing."

A letter was next read from Chairman Cook in which regret was expressed at his inability to attend the sessions of the Council because of the depressed state of his health. Chairman Cook referred in his letter to the great importance of this movement, and of the wisdom shown by the State Society in taking it up, and "If handled with discretion and with a liberal spirit, unselfishly laboring to advance the department of public service in which the medical profession especially is interested, and of all classes the best qualified to speak and advise, much good will be done." After speaking of the slow pro-

gress made in our State to bring its institutions up to the highest point of efficiency, and pointing out that this was in a great measure due to vicious system of political rewards, Dr. Cook proceeded to discuss, among other things, the relationship of the Council to the question of its recommendations to the Governor-elect of candidates for positions as medical men in the State institutions. Further, that we should impress Governor-elect Yates with the fact that we are willing to recognize the existence of other so-called schools of medicine in the State. Further, that our chief aim should be efficiency in the broadest and best sense of the word, whether the applicant be a man or a woman.

Dr. Black suggested that the Council devote the first part of this session to the general considerations involved in the matters before us rather than to individuals. Agreed to. The number of offices in the State to which medical men were eligible as appointees of the State executive were referred to. A partial list of these was submitted by Dr. Black.

President Kreider suggested that Dr. O. B. Will give his views as to what the Council could do to best carry out the work assigned to it by the State Society in this particular. Dr. Will replying to this request, submitted three propositions for the consideration of the Council.

As a preliminary he stated that in order to carry out the idea of the Society under the resolution which created this special work for the Council, i. e. of obtaining the names of physicians who were eligible to the positions the State had to offer its medical men—we could—

First: Simply endorse the character and professional standing of the physicians whose names were sent in as "eligibles" from the societies in affiliation with the State organization.

Second: Select from our own personal knowledge physicians who were well qualified for these positions.

Third: Request Governor-elect Yates to let us act in an advisory capacity. That

he turn over to us for our endorsement the names submitted to him, either by personal application or when otherwise recommended.

Dr. Will stated that it was his personal belief that the last proposition would more nearly fulfill the desires of the State Society as to what we should do than either of the other two. This was the expressed opinion of Drs. Reat and Harvey.

Dr. Mitchell moved, seconded by Dr. Reat, that the Council adopt the last proposition of Dr. Will.

Chairman Graham suggested that Dr. Will put his proposition number three in the form of a motion. This the doctor did, and it reads as follows:

Resolved, That the Judicial Council, through its appointed spokesman, ask of the Governor the privilege of conferring with him in an advisory capacity with reference to men to fill the medical positions under the State administration. This in order that the regular organized profession of the State may feel able to endorse and uphold the administration in the best interests of the general public, and to the honor and credit of the profession.

Dr. Reat would like to make provision in the way of a question for the Governor-elect as follows: "Would you favorably consider a list of medical men made out by this Judicial Council from which to make your selections for the various medical offices in the State under your control?"

President Kreider made the statement that Dr. Mitchell's motion on the suggestions of Dr. Will, especially the last clause (3d), should be carried. It will avoid giving offense to the members of the State Society, every one of whom, as far as being an eligible before the Council, stands on an equal footing with every other member. The membership expect a great deal from the work of the Council, and we should at least avoid even a pretense for friction. This can not be if there is any appearance of going before Judge Yates with a list that

may look as if it were made up of political favorites.

Dr. Reat: How is the Governor-elect to advise with us?

Dr. Graham: Inform the Governor that we hold ourselves ready and willing to advise with him at any time and place, when notified.

President Kreider and Dr. Black object to the mentioning of any name in connection with any office in the gift of the Governor-elect at this time. Later it may become our duty to do so. Dr. Mitchell assents to this.

The motion of Dr. Mitchell on the resolution presented by Dr. Will was put and carried unanimously. Chairman Graham stated that the motion just carried was to be understood as being our position at the present time before the Governor-elect.

Dr. Black thought that suggestions gathered from each other would now be in order as a basis for a letter defining our position to Governor-elect Yates. He gave the following: How did this movement originate? Dr. Black explained that it grew out of a statement by Governor Tanner that he had no authoritative body to whom he could appeal when the wishes of the medical profession were to be consulted. Further than this that the medical profession as a body had never expressed any preferences as to his appointments before they were made. Dr. Black suggested further that the Governor-elect should know that the Judicial Council is a committee of the State Society. That the Council is elected by the delegates from eighty organized societies scattered all over the State of Illinois and in affiliation with the State Medical Society.

Again, Dr. Black thought it well for the Governor-elect to know that in the whole State of Illinois we are the only representatives of a large body of medical men. That we speak for four thousand of the eight thousand regular physicians in the State. Further, that there are eight hundred homoeopaths and four hundred eclectics within the boundaries of the State.

Dr. Mitchell thought it wise to in some way show to Judge Yates that we were willing to pro rate whatever appointments he was required to make with the homeopaths and eclectics.

Chairman: It would be well if the Governor-elect could know that we are willing to pass on the qualifications of an applicant for medical office, no matter what his school. President Kreider: If the governor-elect will but present the name of any medical man, regardless of what school he claims to practice, we will look up his standing for him and give an unbiased opinion.

Chairman Graham suggests that we may be making a mistake to refer to our strength before the Governor-elect. We put ourselves in the best position when we simply show him that we are here only to try to find strong and good men for the positions which he has to fill regardless of either their politics or school of practice.

Dr. Black: As to our acting in advisory capacity to the executive we have good precedents for this in the State Board of Pharmacy, who are required to submit three names from which the Governor may select one or more of his appointees. Also the State Board of Horticulture and Board of Architects act in this advisory capacity.

Dr. Black thinks that Judge Yates should know that more vile and unfortunate things have come out of these State institutions to the undoing of the appointive power than any other one thing.

President Kreider suggests that it would be well for the Governor-elect to know that no member of the Judicial Council is looking for office under his administration.

Chairman makes the statement that no other body of citizens have the interest, and no other class the knowledge that we have of the needs of the inmates of the various eleemosynary institutions of the State.

As spokesman before Judge Yates for the Judicial Council Dr. Mitchell suggests Dr. Black. Dr. Black objects for the reason that many of these matters have already been talked over between him and

Judge Yates, therefore some one else that could present the subject anew would add additional emphasis to it.

Dr. Mitchell substitutes the name of Dr. Graham. The doctor objects to this and urges the appointment of Dr. Will. This was made a motion by Dr. Reat. Seconded by Dr. Black. Carried unanimously.

Dr. Will presented the following motion which was seconded by Dr. Harvey:

That it is the sense of the Judicial Council that all communications to the editorial committee with reference to the position of the society's journal regarding the application of any member for editorial endorsement for official position be first referred to the Judicial Council for its consideration and action.

Dr. Carl E. Black seconded by Dr. H. C. Mitchell moved that it is the sense of the Judicial Council of the Illinois State Medical Society that the system of internships be re-established in all State institutions where medical service is required; which internships should be filled by competitive examinations of recent graduates of medical institutions in the State of Illinois and that the object of this action is to furnish educational advantages in special diseases in addition to securing more effectual service for the State.

Adjournment was now taken until 2 P. M., when the members of the Council were to meet Judge Yates as previously arranged for by Dr. Black.

2 P. M., Room of Judge Yates, Government Building, Springfield, Ill.

Members of Council present: Drs. Graham, Reat, Will, Mitchell, Harvey, Black and Percy. The members of the Council were introduced to Judge Yates by Dr. Black, of Jacksonville. The Governor-elect received the Council very cordially, and said that he was very glad to see physicians taking some practical interest in the affairs of the State of Illinois. The Judge further intimated that if we took a little more interest in the primaries before the elections it would still be better for all concerned. Dr. Will was then introduced

as our spokesman and was listened to very attentively by Judge Yates.

Dr. Will said: "Judge Yates—We come to you as the Judicial Council and official representative committee of the Illinois State Medical Society (a body consisting of delegates from eighty local associations, and representing the sentiments of the organized profession of the State, three or four thousand in number), to ask the privilege of a conference with you respecting the medical appointments connected with the several State institutions and boards. We are not seeking either for ourselves or any specific individual or individuals. Our interest is simply, in the main, that of all good citizens, to the end of securing honorable efficiency in the public service. We have been led to feel, however, that in so far as technical requirements and professional standing are concerned, we may be in a position to render you some service in your selections, if you feel so disposed toward the wishes of representative constituents.

We may say for your information, and in extenuation of any apparent officiousness, that our action in this respect is the outgrowth of some experiences in the past, in which caustic professional criticism and expressed dissatisfaction on the part of the body we represent, were met with the rejoinder of the executive that the profession had been derelict in not making known their position and wishes in regard to these matters. We are, therefore, now attempting to profit by the suggestion. While realizing the force of political exigencies, we feel that real merit should stand first in these selections; that it is your desire that it shall, and that the nature of much of the service required is such as to deeply interest us as medical men and make us feel that we are in a position to aid you in consulting the wishes of the organized profession if you are disposed to do so. To that end, if it is your pleasure, we prefer being considered as standing in the position of advisers, when occasion may re-

quire, rather than assume to suggest names for your consideration."

The Governor's reply was: "Well, gentlemen, I am pleased to meet you, and appreciate the interest you take in this matter. I may say, however, without any tendency to undue assumption, that I was born and have always lived in Jacksonville, Morgan county, the seat of several State institutions and the virtual birth-place of all of them, and have been familiar with their conduct and management all through life, so that I feel that I know the needs of all of them as well as any man in the State. I shall be in no hurry about making the necessary appointments, with which I hope that you and the body you represent will be abundantly satisfied. Indeed I may call upon you for the advice tendered.

I wish to say further, that the governorship of this State will not be made a mere incident in my political career, but the four years of my prospective administration I shall hope to mark, if possible, as the most efficient in the conduct of the institutional affairs of the State. I thank you for your visit and bid you good day."

After meeting Judge Yates the Judicial Council was called to order by Chairman (pro tem) Graham. Drs. Mitchell, Will, Black, Reat, Harvey and Percy were present, together with President Kreider.

The following motion by Dr. Black, seconded by Dr. Will, was put by the chair and carried:

Whereas, The Judicial Council, after canvassing the various plans of action on the duties delegated to it by the State Society, have concluded that for the present the interests of all concerned will be best promoted by acting in an advisory relation to the executive, and

Whereas, The executive-elect has expressed to us a willingness to advise with the Judicial Council, thus taking out of our hands all personal recommendations, therefore

Resolved, That the secretary be instructed to return to the various societies applications received from them with this

information, that applicants for positions be notified that their applications for positions be sent directly to the executive himself.

Dr. Will moves that a committee of three be appointed of which the secretary is one, to prepare as succinct a paper as possible embodying the purposes and reasons actuating the Judicial Council, on behalf of the State Medical Society, in asking of the State Executive the privilege of advising with him regarding the medical appointments in the State, and transmit the same to him for his consideration. Seconded by Dr. Black.

Chairman Graham appoints Drs. Will, Percy and Cook.

Dr. Black offers to present any communication to Judge Yates that the Council cares to intrust him with that purpose.

Correspondence.

ILLINOIS AND CALIFORNIA.

In 1858 when Rush College was in its infancy, and J. H. Hollister was its youthful demonstrator of anatomy, a young naval surgeon came to take a special course of instruction. He was a nephew of Levi Cooper, one of the earliest vice-presidents of the State Medical Society, and had received his appointment to the navy from Illinois. His name, Levi Cooper Lane, is now well known in the medical world, for he soon left the navy, and *mirabile dictu*, became wealthy and founded at his own expense the Cooper Medical College in memory of our Illinois pioneer.

As may be supposed he has pleasant memories of Illinois and its State Society. Dr. Hollister sent Dr. Lane a copy of our Jubilee number and received the following note which we are permitted to copy:

San Francisco, Nov. 27, 1900.

My Dear Dr. Hollister: I have received and read with unusual pleasure the account you sent me of the symposium of the founders of the Illinois State Medical Society. I vote the palm to the parson,

though all did well. Dr. Boal also deserves a laurel for his admirable speech. What a charming nonagenarian.

Yours truly,
L. C. Lane.

Carlinville, Ill., Dec. 4, 1900.

To the Editor:

Dear Sir: We have been having an interesting case before the courts in Macoupin of vital interest to the medical profession. In fact, it is the first case to be decided against a surgeon in the annals of the county.

The statement of the case is: Jack Short fell from a moving train and sustained a fractured femur.

In the absence of a company surgeon, Dr. Horine took charge of the case, and placed the leg in a Hodgen splint—that is, a double inclined plane, with extension.

The patient was in a depraved physical condition due to the fact that he was in the habit of drinking an unlimited amount of "Spirits Frumenti."

Two or three pints of the whiskey were delivered at his house daily, of which he and his boon companions partook freely.

After six weeks there was found to be an un-united fracture, and the attending physician advised that he be sent to the Alton Hospital for excision of the ends of the bone.

This was done and a firm union established with shortening of the leg two or three inches, due to the removal of the bone.

Mr. Hamilton Bell, for the prosecution, attempted to prove that the Hodgen splint was at fault, while Mr. Thomas Rinaker claimed that the depraved condition of the system, due to inebriety, caused the failure of the bones to unite and necessitated the secondary operation.

Drs. Haskell, ex-President of the Illinois Board of Health; Dr. Fisher, Division Surgeon of the C. & A. R. R., and Dr. Yerkes, of the Alton hospital, with Dr. J. R. Ash, of Brighton, were the witnesses for the prosecution, while the expert testimony for

defense were Drs. Matthews, Collins, Denby, Fischer and Hankins, of Carlinville.

The suit was for \$5,000 damages. The jury were a tie, but compromised on a verdict for the prosecution with a fine of a nominal sum of \$150.00.

The judge granted a new trial on the grounds that the amount of damages, \$150.00, was too insignificant compared to the injury sustained.

Yours truly,
J. Palmer Matthews.

County and District Societies.

The Vermilion County Medical Association met the evening of the 14th in the office of E. E. Clark in Danville, with a fair attendance.

W. A. Cochran read a very interesting paper on Gynecological Conditions, which brought an interesting discussion.

Following the discussion of the paper the following officers were elected for the ensuing year:

President, E. B. Cooley, Pilot.
Vice-President, Jos. Fairhall, Danville.
Secretary Treasurer, E. E. Clark.

The president appointed the following board of censors:

F. N. Cloyd, Westville, J. H. Clinch and Samuel Moore, Danville.

A committee, on violations of the Medical Practice Act, was appointed as follows:

E. E. Clark, Joseph Fairhall and T. E. Walton.

Adjourned to meet the 11th of January.

E. E. CLARK, Secretary.

The North Central Illinois Medical Association held a very successful meeting in the city of La Salle, December 5th and 6th. There was a two day's session with a banquet on the evening of the first day which was remarkably successful, in that one hundred and eighty-five guests sat down to the table.

Many toasts were responded to in happy vein, after which Dr. J. B. Murphy delivered an address, semi-popular in character, on the subject of "Appendicitis." This was thoroughly appreciated, not only by the professional brethren present, but also by the laity.

A complete and extended report of this meeting will appear in the near future.

The Peoria City Medical Society held its annual meeting, Tuesday, November 6, and elected:

President, E. M. Sutton.
Vice President, R. A. Kerr.

Secretary, E. M. Eckard.

Treasurer, Emma Lucas.

Board of Censors, A. J. Kanne, J. L. Roberts, A. L. Corcoran.

Pathologist, A. J. Kanne; appointed by the President,

President Sutton delivered an address on assuming the chair which was replete with good advice. Among other things he said "next May the greatest meeting of the Illinois State Medical Society will be held in this city and our committee of arrangements will have great responsibility connected therewith, which can be lightened only by the united assistance of the local society. The first step in this assistance is that every member of this society join the State Society, which requires only your name, endorsed by this society, and \$3.00. This is practically subscribing for the State Medical Journal, which is a monthly publication of great value, edited by the best talent in our State, containing transactions of the State Society, with much medical news. The secretary will tonight furnish you with blanks which you should at once fill out, and if you will permit me to read the following appeal to the irregulars to organize, you will appreciate the importance of the efforts made by the State Society to increase its membership, not for its own sake, but for our own.

This society should lend its helping hand to the State Society. More, it should go into the State Society in a body out of respect for the coming meeting. Our committee on legislation and quackery has accomplished much, but to be effective their work must not be spasmodic, but continuous. The members should aid this committee by reporting irregulars and suggesting methods of repressing flagrant quackery.

Of the numerous side shows of medicine I wish to say only, that they have always existed and always will. When a man has health his faith in medicine seems dead, but when old pain gets hold of him faith springs up anew and good doctors will always be in demand. The best way to combat fads is to perfect our own methods and educate the people to the point of appreciation.

The Society now consists of 64 members in good standing, representing about one-half of the entire profession located in the immediate vicinity. The one-half not included in the Society consists, as you know, of those who have, for one reason or another not joined, though perfectly eligible; many perhaps because their applications have never been solicited. Such members of the profession, whom you may know, I earnestly request you to see and personally persuade to join this Society, which can benefit them much, while they in turn benefit the Society. Those of the one-half not included in the membership, who are not eligibles may see the signs of the times and properly qualify so as to become members. There should be a committee on membership, whose express duty it should be to visit every addition to our faculty and secure his application for membership.

The meeting of November 20th was held in the club room of the National hotel. President Sutton in the chair. The board of censors reported favorably on the application of J. H. Shepperd and he was unanimously elected to membership. The chairman of the local committee of arrangements anent the next meeting of the State Medical Society, J. W. Hensley, reported progress in all directions arguing a prospectively large attendance. At the close of the routine business, the President introduced C. B. Johnson, of Champaign, Ill., president of the State Board of Health, who presented an address upon the subject "Some Medical Discoveries of the 19th Century." It dealt with three principal epochs in professional progress, viz: The discovery of anesthetics; the discovery of the cause and means of preventing sepsis and the discovery of the trained nurse. The doctor gave a brief account of the experiences attending the introduction of anesthetics, and an epitome of the usual contentions for priority following any successful venture. He dwelt upon the discoveries of Pasteur as preliminary to the introduction of antiseptic methods by Lister, and the subsequent reduction of these to the aseptic regime of Lawson, Tait and others. In conclusion he expressed ignorance as to the original discoverer of the trained nurse, but lauded her as a necessary factor in the success of 19th century surgery. Whether she was a product of original thought, or only an evolution from existing needs he could not say. The ideally competent trained nurse is hard to find, but when found she proves a jewel to the latter day surgeon, who can trust her to manage the case properly in the interim of his visits, and give him his nights free from anxiety and care.

The address was a scholarly and interesting one, and received with general expressions of delight.

Abstracted from the Peoria Medical Journal, December, 1900.

Meeting of the Pike County Medical Society at Pittsfield, Ill., Dec. 20, 1900.

Meeting called to order at 1:30 p. m., by President L. J. Harvey.

Members present: Drs. H. T. Duffield, W. M. Shastid, R. H. Main, Geo. A. Humpert, F. M. Crane, G. U. McComas and L. J. Harvey. Visitor, Dr. Bowman of El Dara.

Minutes of last meeting read and approved. Bill of Dr. R. H. Main for supplies for the Society allowed and ordered paid (\$7.09).

The following resolutions were passed:

Resolved, That the Pike County Medical Society endorse the actions of the committee on medical legislation of the Illinois State Medical Society.

Whereas, Owing to the fact that the registration of many births and deaths is neglected by physicians, and many others are omitted because there is no physician in attendance, and more than all perhaps because there is no recompense for such work, therefore be it

Resolved, That it is the sense of this So-

cietly that the existing law regarding the registration of births and deaths should be so amended as to fully carry out the intent and purpose of such law.

Whereas, Dr. James A. Egan, Secretary of the State Board of Health, has for three and one-half years performed the duties, pertaining to his office, faithfully, energetically and satisfactorily to the members of the medical profession and the people alike, and that he has striven hard for the promotion of desirable medical legislation and the high standard of medical education, therefore be it

Resolved, That the Pike County Medical Society recommend to the Gov.-Elect Richard Yates, that he reappoint Dr. James A. Egan as Secretary of the State Board of Health.

R. H. Main read a paper on "Pneumonia with special reference to its Contagiousness," in which he showed the possibility of contracting the disease in the sick-room and reported nine cases of labor pneumonia that had occurred in his practice from direct exposure to the disease. He considered the disease positively contagious and advised that prophylactic measures be taken in its treatment to prevent its spreading.

Most of the members present expressed doubt as to the contagiousness of pneumonia. They explained the evident epidemic tendency by saying it was due to the favorable environments and atmospheric conditions as well as the favorable condition of the person attacked.

Dr. L. J. Harvey expressed the belief that the disease was contagious.

Dr. Duffield reported a case of fracture of the ninth and tenth dorsal vertebra in which the spinal cord was torn.

Drs. G. U. McComas, E. R. Motley, T. D. Kaylor and Geo. A. Humpert were selected to present papers at the next meeting.

R. H. Main, Secretary.

The Fulton County Medical Society held its 13th bi-monthly meeting in the Masonic parlors, Vermont, at 8 o'clock P. M., December 4.

Called to order by President Shallenberger. The following were present at roll call: W. E. Shallenberger, president, Canton; P. H. Stoops, vice-president, Ipava; D. S. Ray, secretary, Cuba; R. S. Blackburn, Breeds; V. C. Morton, Ipava; E. W. Regan, Canton; Scholes, Canton; J. E. Coleman, Canton; W. C. Fowler, Vermont; J. W. Connelly, Farmington; Dr. Jones, Ipava; Dr. Rogers, Cuba; E. S. Parker, Vermont.

Minutes of previous meeting read and approved.

J. E. Coleman moved resolution praying the re-appointment of J. A. Egan, as Secretary of State Board of Health. Carried.

E. W. Regan moved that secretary be instructed to send copy of resolution to Gov.-elect Yates. Carried.

E. W. Regan moved resolution praying the appointment of E. M. Sutton of Peoria, a member of Board of Managers of the Institution for Incurable Insane at Peoria. Carried.

Secretary Ray read resolution of Morgan County Medical Society, relative to re-organization of county organizations. No action was taken thereon except to refer to committee appointed at last meeting.

E. W. Regan moved that non-members present be elected temporary members for the evening and be invited to participate in the proceedings. Carried.

S. B. Bennett being absent his paper on Calcium Sulphide as a Therapeutic Agent was read by the secretary. The author claimed great virtue for the salt in suppurative diseases and croup, but placed little value on it in topical applications for cutaneous diseases.

Dr. Connelly in the discussion of the paper claimed great success with it in diphtheria and scarlet fever given in large doses, one grain every two hours and saturate the system as quickly as possible.

E. W. Regan had been disappointed a great many times in the use of it in furunculosis and had very little regard for the salt. Its use met very little encouragement from Drs. Parker, Coleman and Stoops. Dr. Fowler had obtained very good results from it, in some cases especially during the epidemic of small-pox during the passed summer while in some of the cases the results were negative, which he attributed to impure preparation. He considered it of paramount importance to not only use a preparation put up by a reliable manufacturer, but to use either gelatine or chocolate coated pills or tablets and to keep them in a cool dark place.

Dr. Connelly closed by insisting upon the efficacy of calcium sulphide in diphtheria and scarlet fever and emphasized Dr. Fowler's precaution to use a pure article in the gelatine or chocolate coated tablet.

E. W. Regan presented the following paper with specimen of brain tumor.: "Brain tumors, while fortunately rare are interesting. The diagnosis involves considerable study and the chances for operative work, depending as they do on the location, tax our location knowledge to the uttermost. The following case occurring in my own practice was diagnosed early, (that is three months after I first saw the case, it being of very slow growth) principally by the ocular condition, that is, the gradually increasing papillitis, exophthalmus, and paresis of 6th nerve, later confirmed by staggering gait, gradual deafness until total, defection of speech, blindness, pain in the head, some vomiting and vertigo, and lastly confirmed by specimen which I have the good fortune to be able to present.

W. H. C., aged 27, came to me on Oct. 5, 1898, to obtain glasses, supposing that was what he required. He had been to an optician, who by the way happened to be honest, and who referred him to some oculist as he could not fit him. The patient was a stranger to me, but I observed that he had a peculiar gait, also that his speech was not clear. The vision in O. D.-6-9 either eye which no lens improved. His family history was good, patient himself

had always been healthy. Some three weeks prior to his visit, he noticed that on looking to the left, he saw things double. On this point I examined the extra ocular muscles and found them all normal except paresis of the left external rectus. He had power in the muscle so that when he made an effort to look to the left he saw singly, but without effort or on quickly looking in that direction diplopia was present. The following notes were taken at the first examination. The eyes appear prominent, pupils larger than natural, superficial vessels injected. Ophthalmoscope: O D M C disk full densely congested, edges slightly elevated and masked, veins full and tortuous. O S same only in less degree. There had been same pain in the head, no vertigo nor vomiting, pain worse in the morning. I placed him on the one, two, three mixture. I kept him with the Iodide for three months during which time he failed constantly, and the choked disk became very much worse measuring 4 D. The right eye progressed more rapidly than the left, until by this time the disk began to bleach out and vessels very small. He could still go about with left eye. At this time I sent him to Chicago. Dr. Montgomery treated him for about three months when he returned home. He was nearly blind, getting hard of hearing and his gait was unsteady, speech more thick, exophthalmus more pronounced. As I could do nothing further he drifted around from one to another. In the meantime he developed lightning-like pains in the legs. One physician said he had no brain tumor at all, but sclerosis of spinal cord. One osteopath said he had a bone dislocated in his neck which he could straighten and cure him, but he didn't do it. X ray photos gave negative results. Later he became deaf and almost bed ridden, he could, however, get up and down to within one week of his death. In the last part of his sickness he was a pitiable sight, emaciated, blind, deaf, no control of bowels or bladder, delirium at times, pulse became rapid, paralysis of facial nerve of right side, skin a peculiar dark color, paralysis of palatal muscles, paresis of bowels, sloughing of right eye. Some two months before death there appeared on the basilar portion of bone an enlargement and later one on vertex of skull. These enlargements were bone swellings which on examination post mortem, revealed a localized meningitis with small gray projections extending through the diva into and through the calvarium making small perforations and thickening of periosteum. One of these swellings was immediately below the tumor and the other on top of the head.

That the tumor was located in the base of the brain we could feel assured, but its exact location we could not decide.

The patient lived two years from the time I first saw him.

Brain tumor arrogates more and more space to itself within the unyielding cranial cavity. Hence, an increase in the intra-cranial pressure arises, by virtue of which a portion of the cerebro-spinal fluid is pressed out of the

cranial cavity. This fluid finds egress partially in the direction of the spinal canal, partially in the optic nerve, hence the engorgement producing the neuritis which should be considered more of an oedema than inflammation. The paresis of the external rectus was the result of pressure on the nerve close to its origin i. e. floor of 4th ventricle. That facial paralysis did not follow, shows that the pressure ceased to crowd upward until late as the nucleus of the 7th nerve is immediately above that of the 6th in the floor of the same ventricle, gradually the pressure on the 8th nerve produced deafness and on the 7th facial paralysis, later on the vagus producing paralysis of the muscles of the pharynx and rapid action of the heart.

The tumor is large as you can see for a brain tumor. It is hard and contains a large amount of fibrous tissue, it has crowded the pons and medulla over to the left side and it was undoubtedly owing to this pressure on the cord that produced the lightning-like pains of locomotor ataxia."

The paper was received with deep interest and the tumor examined by all during ten minutes recess taken for that purpose. Interesting discussion followed, but all harmoniously agreed that the case was plainly inoperative at any time during its development and that nothing but palliative treatment indicated. The author thought that had it been of syphilitic origin, the iodides would have done some good. Dr. Coleman thought it made no difference and that such tumors were out of the reach of the therapeutic measures.

Dr. Coleman presented a very interesting paper on tuberculosis. It was very forcibly pointed out that all efforts towards the suppression of this dreadful disease are fruitless unless strict disinfection and isolation of all cases was observed and that this is impossible unless special sanitariums are organized and maintained for such patients.

In the medical treatment of cases nothing was as important as good and proper feeding. The nebula treatment with oil omitted, is without question the best treatment of the day. Creosote may be good. California was recommended as presenting the most favorable conditions to the tubercular patient as a variety of climates and temperatures was within easy reach without having to take long exhausting journeys. In a certain number of cases simply a change of place is all that is required to obtain the benefits of the "change of climate" treatment without any special regard to climate, temperature or altitude.

The author called attention to the fact that a large number of patients did not know how to take a good healthy breath and that proper education along this line was productive of much good.

In the discussion that followed, Dr. Regan thought that south Arizona and New Mexico presented the most favorable climate for these patients, while Dr. Blackburn preferred North Carolina.

Dr. Coleman in closing suggested strict cleanliness of patient and surroundings, the use of spit cups which should be burned, the destruction of all animals which are infected with tubercular germs and to early or not at all send patients to a more favorable climate. There has not been as yet a climate secured that is an ideal one and suited to all cases of consumption, but a warm dry one seemed most favorable. Arizona and New Mexico are too much of a storm centre and the sand storms are undesirable. A very good climate is found in Texas.

The President appointed Drs. Rogers, Connelly and Scholes as committee to select the next meeting place who afterwards decided upon Lewistown for the February meeting.

On ballot E. S. Parker of Vermont and E. L. Nelson of Dunferndie were elected members of the Society.

Applications for membership were received from J. R. Blackstone and W. R. Blackstone.

Adjourned to meet at Lewistown, February 5, 1901. D. S. RAY, Secretary.

First regular meeting of the German Medical Society, of Chicago, after the vacation, October 11, 1900, M. Herzog, presiding.

The annual election of officers resulted as follows:

President, Gustave Futterer.

Vice-President, Emil Ries.

Secretary, Adolph Decker.

Beisitzer, Alfred Schirmer and Ernest Saur-
enhaus.

A letter from Carl E. Black, asking to appoint a committee of three "for the good of the profession," was referred to the new officers.

It was moved and seconded to hold the regular annual banquet of the society on October 25. Carried.

Emil G. Black gave an interesting report of his European trip.

Regular meeting November 8, in Hotel Bismark, G. Futterer, presiding.

E. Saurenhaus presented multiple myomata of the uterus combined with a parovarial cyst.

E. Saurenhaus spoke on a new probable cause of eclampsia from a clinical standpoint. He gave it as his opinion that everyone who saw many cases of this disease must be convinced that only an infection can explain all the symptoms. He deems the gonococcus the most probable cause.

G. Kolischer: There are cases of eclampsia without the symptoms of an infection. In most cases the eclampsia disappears as soon as the uterus is emptied. Where there is infection present, the uterus fares badly in bloody operations; but sectio caesareana has been performed in eclamptics without any accident. If the gonococcus were the cause, we would see many women effected. The eclamptics do not die under the symptoms of an infection, but under those of uraemic coma.

G. Futterer: If uraemia were the cause of eclampsia, we would be at a loss to understand, why eclampsia only occurs in pregnancy.

E. A. Fischkin reports a case which supports Saurenhaus' theory. A man with gonorrhoea post. marries against the advice of the physician. A year later his wife has eclamptic convulsions during the confinement.

A. Schalk read a very interesting paper on the modern treatment of gonorrhoea.

A. Heym made a motion to organize an insurance for the benefit of sick and invalid physicians.

Referred to a committee of three, consisting of G. Heym, G. Schirmer and Ries.

The Sangamon County Medical Society met in the county court room, December 10th, 8 P. M., J. N. Dixon presiding.

The following names were presented for membership:

Charles Compton, S. R. Hopkins and William Brittin. The same were referred to the board of directors.

G. N. Kreider gave a talk on senile gangrene, dwelling on the history of the disease, speaking of the pathology and some of the recent theories regarding its causation—Gave in detail the management of the cases that had recently come under his care in which amputation had been performed. Speaker thought amputation in these cases justifiable, as the statistics show. The cases spoken of were very interesting on account of the advanced age.

W. C. Brittin spoke of a case occurring in his practice in which cold was the first indication of disease, pain and discoloration coming on later. Referred to another case which was probably due to infection. No sugar in the urine, amputation performed, resulting in non-union; discoloration followed and sugar found in the urine; patient survived a second operation fourteen days, dying of exhaustion.

J. H. Barto asked if amputation would be advised in all cases of senile gangrene.

O. B. Babcock spoke of a case he saw several years ago in which the gangrene developed in the thigh, followed by a very large slough. J. N. Kelley advised amputation in all cases of senile gangrene unless they were special indications to the contrary. Operate as high up as consistent.

W. O. Langdon asked regarding the consistency of the blood clot found in the vessel; also spoke of the causes producing this condition.

S. E. Munson said the thrombus is not in the immediate vicinity of the gangrene. As a rule senility is due to or accompanied by thrombosis. In diabetic gangrene amputation and dieting should be the means employed in treatment.

J. N. Dixon thinks the cause or causes of senile gangrene very largely determines whether to operate or not. Diabetes causes or accompanies many cases, under such circumstances did not deem operative interference advisable. Would select the middle of the thigh as the sight for operating. A. Brittin said in diabetic gangrene the prognosis was certainly sure death.

G. N. Kreider in closing said spinal anaes-

thesia was not advised in these cases; advised use of normal salt solution injection to prevent shock. Quoting Heidenhain's statistics found he had had almost as good results in diabetics as non diabetics; as yet did not think it settled as to the best point to select for amputating.

Fred S. O'Hara presented the subject of appendicitis from a medical standpoint with surgical limitations.

Thought the element of uncertainty regarding the outcome had given an impetus to surgery.

The catarrhal and suppurative cases constitute over three-fourths of all the cases, statistics show that from post mortem examinations 30 per cent of persons over 35 years of age the appendix is atrophied into a band of connective tissue, and in 50 per cent of over 60 years of age this result is found.

Regarding treatment all say no purges as to opium, by some it is used, probably not so much as formerly, by others its use is condemned.

Reasons for not operating in these cases:

Because it is an intra peritoneal operation and not absolutely safe; because recovery from the attack is the rule; because the resulting scar is a good spot for a hernia; because the physicians mortality is about 5 per cent better than the surgeons; because the danger of chloroform; because of the possibility of finding only an inflamed caecum and a band of connective tissue where the appendix once was; because persons of active habits as such cases generally are, stand operation and confinement less well than chronic invalids or persons of sedentary habits; because the period of recovery is more prolonged; because of the danger of infecting surrounding tissues unnecessarily.

Only those cases that are gangrenous and perforative belong to the surgeon. Death is generally due to general peritonitis.

Referred to the case of Dr. Lincoln who recently died in New York, from what was diagnosed appendicitis, but upon operating no appendicitis was found.

Dr. Kreider considered this an exhaustless subject; thought that truth and statistics should coincide.

Dr. Munson referred to the discussion of this subject which took place at the meeting of the A. M. A., held in Denver. To use or not to use opium was the mooted question. The use of opium depends on the case; amount of pain and tenderness.

Dr. Dixon was of the opinion that the surgeon seldom saw the case at exactly the right time. To accurately say what will be found in the abdomen upon opening it, is very difficult.

Dr. Berry considers no disease more interesting to the general practitioner. Diagnosing and stage of the inflammation the important points.

Dr. O'Hara in closing said he did not advocate operating in all cases. Believed in controlling peristalsis by the use of opium.

Dr. Egan read the decision of the appellate

court bearing upon the practice of medicine.

There being no further business, the Society adjourned to participation of its usual banquet.

B. B. GRIFFITH, Secretary.

FIRST MEETING OF PHYSICIANS AND DRUGGISTS.

The Sangamon County Medical Society held a special meeting Monday evening, November 26th in the county court room, to which the druggists of the city were invited in order that matters of mutual interest might be considered. The meeting was well attended. Dr. Dixon presided and in calling the meeting to order, explained the purpose of the same, asking each one as called upon to express themselves as to how best to remedy the existing evils.

Mr. R. N. Dodds spoke of an agreement sanctioned by the doctors and druggists of Maryland.

Dr. Kreider said there were some real complaints against druggists. Druggists should be dispensers only. Emergency cases require but one dose of medicine from the druggist. Refilling of the prescription is a question requiring solution. Does not believe the physician in the city should carry a big stock of drugs.

Mr. Stuart Broadwell thinks it neither profitable or satisfactory to prescribe over the counter. Refilling is a hard matter to solve. Recognizes the prescription business as the most profitable.

Dr. Buck thought refilling of prescriptions, a greater evil than counter prescribing.

Mr. Robert Clarkson does not think the honest druggist cares for counter prescribing. Refilling should be controlled by the doctors. Emergency cases must be cared for or they will go elsewhere.

Messrs. J. Frisch and Sommer concurred in the remarks already made from the druggist's standpoint.

Mr. Joseph Feltham thinks counter prescribing was to a certain extent due to the fact that the prescription business was not as profitable as formerly. Proprietary preparations being expensive and not very profitable. Does not believe in doctors using secret formulas when prescribing.

R. N. Dodds made a motion that the chair appoint a committee of three doctors and three druggists, to draw up an agreement covering the points discussed, the same to be presented at a joint meeting to be held December 17th. The motion being seconded, was put and carried. The chair appointed on this committee Messrs. Dodds, Clarkson and Broadwell; Drs. Bowcock, Munson and Kreider.

Dr. M. C. Kelley thought the druggists talked awfully innocent about prescribing and refilling. If reports were to be relied upon they were all doing it.

Dr. Nelson preferred prescribing, but was compelled to dispense to some cases. Druggists do prescribe. Thought dispensing was profitable. Refilling was prejudicial to the doctors' interest.

There being no further business, the meeting adjourned.

SECOND JOINT MEETING OF PHYSICIANS AND DRUGGISTS.

Dr. Kreider presiding in absence of Dr. Dixon, the president of the Sangamon County Medical Society.

The doctors and druggists held a called meeting to hear the report of the committee appointed for that purpose at the former meeting.

The following physicians were in attendance: Drs. Kreider, Drennan, Griffith, Bowcock, Shutt, O'Hara, Walsh, P. L. Taylor, A. E. Prince, S. E. Munson, C. E. McElfresh and Buck.

Druggists present: Messrs. Dodds, Diller Broadwell, Feltham, Ryan, Booth, Clarkson Scott, Frish, Zapf, Graeser, Bauman and Sommer.

The minutes of the previous meeting were read and the report of the committee being ready, was read as a whole. It being the wish of the meeting, the report was then taken up and acted upon section by section. The following is the report of the committee:

Your committee beg leave to submit to their respective membership the following rule respecting the practice of medicine and pharmacy, believing a faithful adherence to these rules will conduce to the advancement and best interests of the two professions, and will give the public better service and secure for it more satisfactory results.

1. Pharmacists and those in their employment should positively refuse to prescribe for customers except in cases of urgent emergency. Any person shall be regarded as practicing medicine who shall treat or profess to treat or prescribe for any physical ailment or any physical injury to or deformity of another.

The law gives to pharmacists no right of authority to diagnose diseases and prescribe medicine therefor, which privilege belongs alone to physicians.

Physicians should carry with them or supply to patients emergency remedies only.

2. The substitution of one article for another or one make of an article for another in a physician's prescription without the physician's consent, is condemned as a most reprehensible practice.

3. Whenever a physician for any reason objects to the refilling or copying of his prescription, he should plainly indicate his wishes on the prescription. Pharmacist should refuse to refill a prescription or give copies of them when so instructed by the prescriber.

4. Copies should not be placed upon containers unless ordered to be placed thereon by the prescriber. Physicians prescribing poisonous substances should add such directions as will indicate the use for which they are intended. When unusual doses are prescribed pains should be taken to indicate to the pharmacist that the quantity prescribed is understood.

5. In case of a suspected error or substitution by a pharmacist in the compounding of prescriptions, physicians should always satisfy

hemselves by conferring with the pharmacist, as to the true state of affairs, and in no case should the pharmacist be condemned by the physician, or the physician by the pharmacist, either to the patient and family, or in the press without previous careful investigation.

Whenever there is a doubt in the mind of the pharmacist as to the correctness of the physician's prescription or directions, he should invariably confer with the physician in order to avoid possible mistakes or unpleasantness, and should not attempt to make any changes without such conferences.

6. Pharmacists should never discuss physicians' prescriptions with customers, nor disclose the composition thereof to them.

Upon motion of Dr. Walsh, seconded by Jacob Frisch, the report as a whole was adopted by the meeting.

The same was signed by the majority of those present. It was ordered that printed copies of the report with signatures of all those physicians and druggists willing to sign the same be distributed among the doctors and pharmacists.

There being no further business the meeting adjourned.

LEGISLATIVE COMMITTEE.

The Legislative Committee wishes to acknowledge the receipt of \$1.00 from each of the following list of physicians: These were received during the first three days after the request was mailed. We trust that by the time the legislature convenes many more will respond to this very good cause. This a movement to so bind the members of the profession together that their interests will be respected. Names marked with an asterisk are already members of the State Society.

*Abbott, W. C., 2666 N. Hermitage av., Chicago.
 Allport, Frank, 92 State st., Chicago.
 Ball, A. W., Rushville.
 Barnett, A. A., Jerseyville.
 Berger, A., Lebanon.
 Brooks, H. J., 100 State st., Chicago.
 Brayton, H. S., 1637 Chicago ave., Evanston.
 Bremmer, H. A., Ashton.
 Brick, J. M., Hammond, Ind.
 Bridges, W. T., Stonington.
 Brill, Jno. A., 428 Milwaukee ave., Chicago.
 Brock, J. E., Coal City.
 Brown, J. L., Peoria.
 Buttermann, W. F., 423 Garfield ave., Chicago.
 Byrne, Jno. H., 690 W. Monroe st., Chicago.
 Champion, J. V., Mansfield.
 Chapman, H. W., Whitehall.
 Chenowith, Cassidy, Decatur.
 Clayberg, S. S., Avon.
 Chvatal, J. F., S-W. Cor. 22d and Kedzie ave., Chicago.
 Clement, F. A., Greenfield.
 Cole, W. C., Jacksonville.
 Connelly, Jas. W., Farmington.
 Cook, E. P., Mendota.
 Coppel, F. M., Havana.
 Cushing, H. E., Champaign.
 Daniel, O. L., Murphysboro.

*Davis, Nathan S., Sr., 65 Randolph st., Chicago.
 *De Lee, J. B., 3632 Prairie ave., Chicago.
 *Diller, F. S., Roberts.
 Dodson, J. M., 568 Washington boul., Chicago.
 *Dudley, E. C., 1617 Indiana ave., Chicago.
 *Easley, W. T., Greenville.
 *Eddy, Wm. J., Shelbyville.
 Fink, J. W., Hillsboro.
 *Fish, W. H., Baylis.
 Flantt, J. A., Otterville.
 Foster, A. H., 779 W. Monroe st., Chicago.
 Fountain, J. H., Chapin.
 *Freeman, J. A., Millington.
 Fricke, Anders, 366 E. Division st., Chicago.
 *Germann, M. C. K., Quincy.
 *Grigsby, W. E., Blandinsville.
 *Grim, Adam, Franklin Grove.
 *Grinstead, W. F., Cairo.
 Hagens, G. J., 6053 S. Halstead st., Chicago.
 *Hagler, A. L., Springfield.
 *Hall, Jos., Westfield.
 Hall, W. T., Toulon.
 Handshaw, Anna M., 518 Madison st., Chicago.
 *Harsha, W. M., 103 State st., Chicago.
 Harvey, J. A., Rushville.
 Hays, T. C., Canton.
 Heineck, A. P., Trumble ave., Chicago.
 Herzog, Albert E., Ottawa.
 Hester, W. W., 3640 Cottage Grove ave., Chicago.
 Hilgard, G. E., Belleville.
 *Hole, B. W., Tallula.
 Holderness, E. P. G., Chenoa.
 Jones, T. W., Cornell.
 Keith, Darwin M., Rockford.
 *Knapp, A. A., Brimfield.
 *Knappenberger, H., Macomb.
 Knox, W. T., Manchester.
 *Kreider, Geo. N., Springfield.
 *Lindsay, V. T., Springfield.
 *Lucas, Emma J., Peoria.
 *McAnally, Jno. T., Carbondale.
 McArthur, R. D., 411 Marquette Bldg., Chicago.
 *McMennamy, B. F., Bethany.
 *Main, R. H., Barry.
 Marshall, Jno. S., 36 Washington st., Chicago.
 *Mathews, J. P. & J. Pitt, Carlinville.
 Milbacher, H., Aurora.
 *Miner, Jas., Winchester.
 *Montgomery, W. T., 31 Wash. st., Chicago.
 Morrony, James J., Breese.
 O'Neil, J. W., 1380 N. Clark st., Chicago.
 *Owens, D. W., Hersman.
 Patterson, H. A., Joliet.
 *Percy, J. F., Galesburg.
 Plummer, S. C., 4304 Lake ave., Chicago.
 *Portuondo, B. H., Belleville.
 Prendergast, Joseph, Lake st., and Kedzie ave., Chicago.
 *Quine, Wm. E., 103 State st., Chicago.
 Riddle, H. R., Mechanicsburg.
 Rittenhouse, H. H., 5739 Rosalie Ct., Chicago.
 *Rockey, A. P., Assumption.
 *Sater, Allen, Lena.
 Schlermitzauer, A., Millstadt.
 Schlesinger, M. L., 549 N. Robey st., Chicago.
 *St. John, Leonard, 537 W. Monroe st., Chicago.
 *Stephenson, B. M., Peoria.

Stiver, R. J., Lena.
 Strauss, F. B., Gibson City.
 *Sutton, E. M., Peoria.
 Taphorn, G., Alton.
 Telford, A. T., Menard.
 Thorpe, S. L., Kenney.
 *Trout, J. J., Nashville.
 Turck, F. B., 555 Dearborn st., Chicago.
 *Watkins, J. T., 93 18th st., Chicago.
 Walker, Jas. W., 153 E. 53d st., Chicago.
 *Weir, Jno., West Union.
 Webster, Jno. P., 441 Englewood ave., Chicago.
 *White, A. P., Danville.
 *Williams, Jno. F., 427 Center st., Chicago.
 *Williams, W. W., Quincy.
 Willson, J. M., Marissa.
 *Wilson, R. M., Lincoln.
 Wilson, W. D., Shelbyville.
 *Wing, Elbert, 34 Washington st., Chicago.
 Worthington, H. C., Oak Park.
 Wright, Geo. R., Mineral.
 J. F. Percy, Secretary.

CORRIGENDA.

The following corrections are made in the Chicago list:

Ahern, J. J., 3851 State st.
 Angell, Katherine L., 3608 Lake ave.
 Bailey, W. G., 129 S. Franklin ave.
 Bettman, B., Rialto Bldg.
 Brower, D. R., 597 Jackson boul.
 Betterman, W. F., 423 Garfield ave.
 Earle, F. B., 903 W. Monroe st., member of the State Medical Society.
 Greenleaf Geo. F., Brazil, Ind.
 Hoadley, A. E., Deceased.
 Lee, Francis H., 847 W. 55th st.
 Loeb, Lee, 5601 Washington ave.
 McWilliams, S. A., member of the State Medical Society.
 Norden, H. A., Sturgeon Bay, Wis.
 Regent, M. N., Removed, left no address.
 Robinson, W. F., Deceased.
 Ryerson, E. W., 419 E. Huron st.
 Saner, H. Edward, 398 Well st.
 Sinclair, J. E., 126 State st.
 Washington, John N., Byrneville, Cook Co.
 Waugh, Wm. F., 608 Leland ave.
 Webster, J. C., 946 Jackson boul., member State Medical Society.

Wesley, Allen A., 3102 State st., member of the State Medical Society.

The Medical Women's club is not in affiliation with the State Medical Society and the names of its ten members should not appear in the list.

The correct list shows: Total number of members in the regular Chicago Medical Societies, 1,066. Total number of members of Chicago Medical Societies who are members of the Illinois State Medical Society, 212.

MEMBERS OF COUNTY SOCIETIES.

This is a continuation of the list of members of local societies throughout the State.

Last month we gave the members of local societies in Chicago.

In February will follow a list of the members of city and district societies.

These lists are published just as obtained from the local society secretaries by the committee on medical legislation. They no doubt contain numerous errors, and the chairman of that committee, Dr. Carl E. Black, of Jacksonville, wishes it understood that he assumes no responsibility for the mistakes. We trust that the publication of this list will lead to a revision of all local society lists and would request everyone noticing errors to report the necessary correction to Secretary E. W. Weis, of Ottawa, at once.

Those names marked with an asterisk are members of the State Society.

ADAMS COUNTY MEDICAL SOCIETY.

Otis Johnson, President.....Quincy, Ill.
 C. D. Center, Secretary.....Quincy, Ill.
 Meets second Monday of each month at Quincy.

Number of members, 46.

Number of regular physicians in county, 117.

Number of members in State Society, 15.

LIST OF MEMBERS.

Baker, W. H., Quincy.
 Bates, A. D., Camp Point.
 *Bierne, H. P., Quincy.
 Brennan, A. E., Quincy.
 Brenner, F. T., Quincy.
 *Center, C. D., Quincy.
 Christie, R. J., Sr., Quincy.
 *Christie, R. J., Jr., Quincy.
 Collins, H. O., Fowler.
 Cox, W. M., Mt. Sterling.
 Durant, J. F., Quincy.
 *Fish, W. H., Baylis.
 *Fletcher, J., Mendon.
 Gabriel, E. J., Payson.
 *Germann, M. K., Quincy.
 Gill, L. L., Quincy.
 Gilliland, W. E., Coatsburg.
 Griffith, J. C., Quincy.
 Hart, Henry, Quincy.
 *Hatch, Henry, Quincy.
 *Johnston, Otis, Quincy.
 Justice, J. D., Quincy.
 Kendall, H. W., Quincy.
 Knapp, D. M., Mendon.
 Koch, J. A., Quincy.
 Lambert, J. R., Coatsburg.
 *Landon, D. M., Burton.
 Landon, W. M., Golden.
 Leisen, Anna M., Quincy.
 Lewis, J. Y., Quincy.
 Lierle, G. A., Payson.
 *Montgomery, E. B., Quincy.
 Nice, D. D., Bowen.
 *Nickerson, L. H. A., Quincy.

Retticker, J. K., Quincy.
 *Rice, J. H., Quincy.
 *Robbins, Joe, Quincy.
 *Rooney, Abby Fox, Quincy.
 Sigsbee, W., Mendon.
 Snider, Frank, Liberty.
 Tull, Frank E., Quincy.
 Vasen, Sarah, Quincy.
 Williams, J. G., Quincy.
 *Williams, W. W., Quincy.
 Wilson, I. T., Quincy.
 Woods, R., Quincy.

BOND COUNTY MEDICAL SOCIETY.

Meets in September and April at Greenville, Ill.
 B. F. Coop, President..... Greenville, Ill.
 C. C. Gordon, Secretary..... Greenville, Ill.

Number of Members, 17.

Number of regular physicians in county, 19.

Number of members in State Society, 2.

LIST OF MEMBERS.

Allen, W. A., Donnellson.
 Black, J. A., Pleasant Mound.
 Cary, J. B., Donnellson.
 Coop, B. T., Greenville.
 Duncan, W. W., Sorento.
 *Easley, Wm. T., Greenville.
 Gordon, C. C., Greenville.
 *Gordon, J. H., Pocahontas.
 Gordon, S. J., Pocahontas.
 Gordon, W. E., Old Ripley.
 Haynes, M.,
 Poindexter, E. P., Greenville.
 Waren, J. A., Greenville.
 Wilkins, David, Pocahontas.
 Wilkins, D., Greenville.
 Wilkins, H. E., Sorento.
 Wilson, Dr., Donnellson.

BUREAU COUNTY MEDICAL SOCIETY.

S. W. Hopkins, President..... Walnut, Ill.
 A. E. Owens, Secretary..... Princeton, Ill.

Number of Members, 34.

Number of regular physicians in county, 46.

Number of members in State Society, 6.

LIST OF MEMBERS.

*Blackburn, M. H., Dover.
 Flint, O. J., Princeton.
 Garwood, Jessie P., Princeton.
 Hammore, J. J., Malden.
 Hopkins, S. S., Bradford.
 Hosier, J. W., Hollowayville.
 Howard, W. E., Ohio.
 Kaull, W. M., Princeton.
 *Keller, Wm., Princeton.
 Kelly, F. E., LaMoille.
 *Landis, B. F., Tiskilwa.
 Linabery, W. L., Wyand.
 Lytle, J. P., Princeton.
 Malin, A. H., Lombardsville.
 Mason, W. G., Walnut.
 McLain, J. H., Bureau.
 Minnick, E. M., Bradford.
 Owens, A. E., Princeton.
 *Owens, Hattie M., Princeton.
 *Palmer, C. A., Princeton.
 Plerson, A. G., Arlington.
 Pollock, R. M., Princeton.
 Priestman, J. L., Neponset.

Rennsburg, J. D., La Moille.
 Rice, Geo. I., Princeton.
 *Robinson, F. C., Wyand.
 Shaw, G. G., Bradford.
 Sprague, T., Sheffield.
 Staley, F. H., Sheffield.
 Steele, H. D., Moline.
 Taylor, G. H., Princeton.
 Taylor, J. S., Buda.
 Wilkins, John, Tiskilwa.
 Wright, Geo. R., Mineral.

CHAMPAIGN COUNTY MEDICAL SOCIETY.

Meets once each month at Champaign, Ill.

T. J. McKinney, President..... Gifford, Ill.

J. C. Dodds, Secretary..... Tolono, Ill.

Number of Members, 54.

Number of regular physicians in county, 95.

Number of members in State Society, 17.

LIST OF MEMBERS.

Bartholow, J. W., Urbana.
 Brown, M. S., Danville.
 Burres, W. F., Urbana.
 *Champion, J. V., Mansfield.
 Craig, C. M., Champaign.
 Cushing, H. E., Champaign.
 *Dicks, T. A., Broadlands.
 Dillon, W. B., Urbana.
 *Dodds, J. C., Tolono.
 *Fernold, W. J., Rantoul.
 Finch, J. H., Champaign.
 Fullenweider, J. A., Champaign.
 *Gardiner, J. H., Mahonet.
 Garrison, A. J., Long View.
 Gray, W. L., Champaign.
 Hadden, J. M., Seymour.
 *Harmon, J. C., Rantoul.
 Hicks, S. J., Ivesdale.
 Hoffman, C. P., Sadorus.
 *Hoffman, J. A., Pesotum.
 Howard, H. C., Champaign.
 *Johnson, C. B., Champaign.
 Kinchise, E. W., Sidney.
 *Kratz, E. A., Champaign.
 Laughlin, John, Rantoul.
 Mandeville, J. D., Champaign.
 Martin, John, Tolono.
 *Mason, J. S., Rantoul.
 Matheney, Z. E., Pesotum.
 *Matson, W. F., Monticello.
 *McKinney, T. J., Gifford.
 Miller, H. W., Urbana.
 Mills, C. H., Champaign.
 *Miner, Ellen, Champaign.
 *Newcomb, W. K., Champaign.
 Pearman, J. O., Champaign.
 Purcell, J. T., St. Joseph.
 Reid, L. W., De Land.
 Rowland, G. F., Homer.
 Sale, L. O., Fisher.
 Salisbury, S. S., Tolono.
 Schoengerdt, W. E., Champaign.
 Seagley, I. B., Thomasboro.
 Shurtz, L. W., Champaign.
 Schurtz, R. D., Champaign.
 Spears, Chas., Champaign.
 *Turner, J. W., Homer.
 Walker, T. E., Gifford.
 *Wall, A. S., Champaign.

White, Carrie Noblé, Urbana.
 White, J. E., Urbana.
 Whitmire, T. L., Urbana.
 *Williamson, G. L., Homer.
 Wood, J. H., Champaign.

CLAY COUNTY MEDICAL SOCIETY.

Meets quarterly at Louisville.

J. M. Baylis, President.....Flora, Ill.
 W. E. Burgett, Secretary.....Louisville, Ill.
 Number of Members, 17.

Number of regular physicians in county, 42.
 Number of members in State Society, 1.

LIST OF MEMBERS.

Baylis, J. M., Flora.
 Bowman, N. W., Flora.
 Burgett, W. E., Louisville.
 Cruse, Dr., Oskaloosa.
 Dillman, J. V., Bible Grove.
 Fairchild, Wm. F., Flora.
 Falley, R. L., Bible Grove.
 Gladson, M. M., Hord.
 Johnson, T. A., Xenia.
 Lauchner, H. S., Louisville.
 Mitchell, Dr., Flora.
 Park, E. C., Sr., Flora.
 Park, E. C., Jr., Flora.
 Skief, B. F., Saylor Springs.
 Steely, G. W., Louisville.
 *Thompson, T. W., Oskaloosa.
 Wnorowski, W. F., Iola.

CLINTON COUNTY MEDICAL SOCIETY.

Meets in May, August, November and February
 at Carlyle, Ill.

W. T. Gordon, President.....Carlyle, Ill.
 M. Broening, Secretary.....Carlyle, Ill.
 Number of Members, 19.

Number of regular physicians in county, 24.
 Number of members in State Society, 3.

LIST OF MEMBERS.

Banes, J. A., Germantown.
 Bechtold, A. W., Breese.
 Bechtold, G. W., Breese.
 Broening, M., Carlyle.
 Carter, W. A., Trenton.
 Edwards, F. W., New Baden.
 Fischer, F. X., Germantown.
 *Gaffner, Thos., Trenton.
 Gisse, C., Breese.
 *Gordon, W. P., Carlyle.
 Hord, Geo. Y., Keysport.
 Kuhl, F. G., Aviston.
 Leibrock, P. H., New Memphis.
 Meirinke, B. J., Damiansville.
 Mowney, James, Breese.
 Thompson, N. T., Huey.
 Vogt, John G., Trenton.
 Welsch, John A., Keysport.
 *Wilcox, S. H., Shattuc.

CRAWFORD COUNTY MEDICAL SOCIETY.

T. N. Rafferty, President.....Robinson, Ill.
 L. J. Weir, Secretary... ..West York, Ill.

Meets second Thursday in July, September, No-
 vember, January and May.

Number of Members, 23.

Number of regular physicians in county, 35.

Number of members in State Society, 4.

LIST OF MEMBERS.

*Barlow, C., Robinson.
 Birch, E. L., Robinson.
 Cato, J. B., Huntsville.
 Cooley, E. M., Oblong.
 Firebaugh, I. L., Robinson.
 Griffith, F. J. C., Annapolis.
 Haskinson, W. H., Trimble.
 Hayhurst, W. C., West Port.
 Jones, H. F., Flat Rock.
 Kibbie, H. C., Oblong.
 Kirk, J., Oblong.
 Martin, J. A., Palestine.
 McGovern, J. H., Annapolis.
 Meserve, S. D., Robinson.
 Newlon, LeRoy, Hardinville.
 *Price, C. E., Eaton.
 Rafferty, H. M., Robinson.
 Rafferty, T. N., Robinson.
 Taylor, O. G., Palestine.
 Thompson, J. S., Palestine.
 Voorhees, C. H., Hutsonville.
 *Wier, John, West Union.
 *Wier, L. J., West York.

DEWITT COUNTY MEDICAL SOCIETY.

Meets second Tuesday in January, April, July
 and October.

A. E. Campbell, President.....Clinton, Ill.
 J. C. Myers, Secretary.....Clinton, Ill.

Number of Members, 23.

Number of physicians in county, 32.

Number of members in State Society, 6.

LIST OF MEMBERS.

Barr, D. D., Weldon.
 *Campbell, A. E., Clinton.
 Craig, W. M., Kenney.
 Davis, F., Wapella.
 Davis, J., Farmer City.
 *Edminston, D. W., Clinton.
 Edminston, J. A., Clinton.
 Edmonson, G. S., Clinton.
 Fallenricher, R. C., Clinton.
 Gardiner, J. D., Farmer City.
 Graham, S. A., Waynesville.
 Lake, John J., Kenney.
 Littlejohn, H. C., Farmer City.
 McMakin, C. C., Weldon.
 *McIntosh, J. H., DeWitt.
 McLean, C. T., Hallsville.
 Myers, J. C., Clinton.
 *Norris, A. L., Farmer City.
 Robertson, C. A., Wapella.
 Starkey, G. W., Waynesville.
 Thorpe, S. L., Kenney.
 Tyler, A. J., Clinton.
 *Tyler, J. H., Clinton.
 *Wilcox, J. M., Clinton.

DOUGLAS COUNTY MEDICAL SOCIETY.

Meets first Thursday in February, May, August
 and November.

Maude E. Nichols, President.Tuscola, Ill.
 W. E. Rice, Secretary.....Tuscola, Ill.

Number of Members, 33.

Number of regular physicians in county, 34.

Number of members in State Society, 3.

LIST OF MEMBERS.

Abrams, D. O., Decatur.
 Abrams, J. H., Atwood.

Allen, E. S., Arcola.
 Benefiel, W. F., Atwood.
 Blaine, W. C., Tuscola.
 Brenton, W., Tuscola.
 Burnett, W. H., Camargo.
 Calhoun, Robert E., Chesterville.
 Colyer, J. R., Garrett.
 Colyer, W. A., Garrett.
 Devors, B. H., Hume.
 Dobson, J. W., Arthur.
 Eads, S. A., Arthur.
 Galloway, George, Tuscola.
 Hall, R. B., Cincinnati, Ohio.
 *Hoffman, J. A., Pesotum.
 Holton, H. C., Sidell.
 Mason, J. E., Arthur.
 Matheny, Z. E., Pesotum.
 McClain, B. T., Atwood.
 Nichols, M. E., Nyack, N. Y.
 Pigg, J. R., Kemp.
 Pincherd, J. A., Atwood.
 Pulliam, W. T., Tuscola.
 *Reat, J. L., Tuscola.
 Rice, W. E., Tuscola.
 Slater, O. M., Garrett.
 Slater, P. A., Hindsboro.
 Smith, H. S., Tuscola.
 Voyles, C. F., Murdock.
 Wagner, J. M., Newman.
 *Wagner, J. R., Newman.
 Wiseman, W. A., Camargo.

FULTON COUNTY MEDICAL SOCIETY.

Meets first Thursday in February, April, October and December.

E. W. Regan, President.....Canton, Ill.
 D. S. Ray, Secretary.....Cuba, Ill.

Number of Members, 36.

Number of regular physicians in county, 69.

Number of members in State Society, 5.

LIST OF MEMBERS.

Ames, E. W., Canton.
 *Baxter, A. J., Astoria.
 Bennett, S. B., Canton.
 Blackburn, R. S., Glasford.
 Chapin, L. R., Canton.
 Cluts, A. C., Ellisville.
 *Coleman, J. E., Canton.
 Connelly, J. W., Farmington.
 Copper, J. F., Elmwood.
 Deahm, C. H., Middlegrove.
 Fowler, W. C., Vermont.
 Frazier, W. P., Fairview.
 Hanson, R., Lewistown.
 Harrison, F. M., Bryant.
 Hayes, T. C., Canton.
 Heise, Ellen, Canton.
 Jones, M. C., Ipava.
 Logan, J. A., Canton.
 Morton, V. C., Ipava.
 Nellis, J. M., Canton.
 Nelson, E. L., St. David.
 Nelson, E. S., Bryant.
 Plummer, T. R., Farmington.
 Plummer, Wm., Farmington.
 Ray, D. S., Jr., Cuba.
 Regan, E. W., Canton.
 Roberts, Wm. M., Morris.

Rogers, H. H., Cuba.
 Scholes, Paul, Canton.
 *Shallenberger, W. E., Canton.
 Snively, C. D., Summum.
 *Stoops, P. H., Ipava.
 Strode, W. S., Lewistown.
 *Sutton, J. E., Canton.
 Talbott, D. D., Lewistown.
 Zeigler, D. T., Canton.

GALLATIN COUNTY MEDICAL SOCIETY.

Alex. H. Colvard, President..Shawneetown, Ill.
 George P. Cassidy, Secretary..Shawneetown, Ill.

Number of Members in Society, 10.

Number of regular physicians in county, 24.

Number of members in State Society, 1.

LIST OF MEMBERS.

Barton, John F., Shawneetown.
 Bourland, Isaac N., Equality.
 Colvard, Alex. H., Shawneetown.
 Campbell, Wm., Equality.
 *Cassidy, George P., Shawneetown.
 Coombs, George W., Ridgway.
 Grattan, Wm. H., Shawneetown.
 Jones, T. Alfred, Inman.
 Starkey, H. L., Junction.

HANCOCK COUNTY MEDICAL SOCIETY.

Meets first Monday in May, at Carthage, Ill.

C. L. Ferris, President.....Carthage, Ill.

R. L. Casburn, Secretary.....Carthage, Ill.

Number of Members, 16.

Number of regular physicians in county, 77.

Number of members in State Society, 0.

LIST OF MEMBERS.

Booz, Wm., Carthage.
 Callahan, J. H., Carthage.
 Casburn, R. L., Carthage.
 Ellis, J. P., Augusta.
 Ferris, L. T., Carthage.
 Forney, C. S., Middle Creek.
 Grigson, R. J., Augusta.
 Hart, Flint, West Point.
 Henry, James, La Harpe.
 Jenkins, J. T., Burnside.
 McNeal, A. E., Bowen.
 Mott, Wm. G., Basco.
 Nice, D. D., Bowen.
 Reaburn, J. J., Denver.
 Runyan, C. A., Elvaston.
 Thornber, A. J., Powellton.

JEFFERSON COUNTY MEDICAL SOCIETY.

J. H. Mitchell, President.....Mt. Vernon, Ill.

A. A. Dearduff, Secretary.....Mt. Vernon, Ill.

Number of regular physicians in county, 34.

Nominal organization only.

JO DAVIESS COUNTY MEDICAL SOCIETY.

Meets quarterly at Elizabeth, Ill.

H. T. Godfrey, President.....Galena, Ill.

D. G. Smith, Secretary.....Elizabeth, Ill.

Number of Members, 16.

Number of regular physicians in county, 46.

Number of members in State Society, 16.

LIST OF MEMBERS.

*Bench, E. M., Galena.
 *Egan, J. C., Hanover.

*Fowler, H. M., Scales Mound.
 *Godfrey, H. T., Galena.
 *Gunn, H. F., Galena.
 *Hutton, Wm., Elizabeth.
 *Keller, U. S. G., Warren.
 *Kenegy, C. H., Scales Mound.
 *Miller, G. E., Hanover.
 *Phillips, A. C., Apple River.
 *Smith, D. G., Elizabeth.
 *Smith, I. C., Stockton.
 *Smith, W. A., Galena.
 *Stafford, T. J., Stockton.
 *Tyrrell, G. M., Stockton.

KANKAKEE COUNTY MEDICAL SOCIETY.

Meets first Thursday in February, April, June,
 August, October and December.

Geo. H. Lee, President.....Kankakee, Ill.
 J. H. Roy, Secretary.....Kankakee, Ill.

Number of Members, 39.

Number of regular physicians in county, 51.

Number of members in State Society, 7.

LIST OF MEMBERS.

Adams, H. C., Kankakee.
 Ames, A. A., Kankakee.
 Armstrong, Chas. A., Kankakee.
 Bedford, U., Kankakee.
 Caron, T. E., Kankakee.
 *Enos, E. F., Kankakee.
 Finsler, F. S., Kankakee.
 Foster, J. R., Kankakee.
 Fraser, J. N., Kankakee.
 Gasselin, Jos., L'Erable.
 Gulick, J. M., Manteno.
 Hawley, A. W., Kankakee.
 House Arthur N., Bonfield.
 Hudson, A. M., Kankakee.
 Jacobson, L. F., Clifton.
 Kenoga, A. S., Hersher.
 Lee, J. H., Kankakee.
 Mathew, L., St. Anne.
 Morel, C. F., Bourbonnais.
 Peck, E. A., Kankakee.
 Penniman, Dr., Bonfield.
 Phelps, G. M., Kankakee.
 *Podstata, V., Kankakee.
 Rogers, H. H., Kankakee.
 Roy, J. H., Kankakee.
 Rouleau, G. S., Bourbonnais.
 Scobey, W. E., Kankakee.
 Schubert, J. J., Kankakee.
 *Shrontz, C. T., Kankakee.
 *Smith, C. F., Kankakee.
 Smith, L. J., Beddick.
 Stebbings, F. S., Bradley.
 Thomas, S. S., St. Anne.
 *True, Chas., Kankakee.
 *Uran, B. F., Kankakee.
 *Walker, S. R., Chebanse.
 Way, S. J., Kankakee.
 Wheeler, H., Grand Park.

LASALLE COUNTY MEDICAL SOCIETY.

Meets annually the third Tuesday in April.

R. W. Bower, President.....Sheridan, Ill.
 E. H. Butterfield, Secretary.....Ottawa, Ill.

Number of Members, 72.

Number of regular physicians in county, 77.

Number of members in State Society, 23.

LIST OF MEMBERS.

*Bergeson, John, Ottawa.
 Blanchard, M. E., Marseilles.
 *Bonar, B. L., Streator.
 Bower, G. S., Ransom.
 *Bower, R. W., Sheridan.
 Bronson, Geo., Streator.
 *Burke, P. M., LaSalle.
 Burns, G. L.,
 *Burrows, T. W., Ottawa.
 *Butterfield, E. H., Ottawa.
 Cook, C. E., Mendota.
 *Cook, E. P., Mendota.
 Chalfant, C. D., Streator.
 Christian, Dr., Lostant.
 Clarke, A. L.,
 Cole, J. S., Peru.
 Conlee D. S., Streator.
 Corbus, J. C., Mendota.
 *Downey, B. J., Ottawa.
 *Dicus, G. A., Streator.
 *Dicus, J. F., Streator.
 Edwards, J. W., Mendota.
 *Ensign, Wm. O., Rutland.
 Farnham, C. E., Grand Ridge.
 Fehe, Henry, Ottawa.
 Fell, E. E., Lostant.
 Fergeson, H. M., Morris.
 *Fogg, C. E., Winona.
 Frazer, W. H., LaSalle.
 Freeman, C. A., Millington.
 *Freeman, J. A., Millington.
 Geen, J. S., Utica.
 Gilbert, Max., Ottawa.
 *Goble, E. T., Earlville.
 *Hanna, Dr., Lisbon.
 Hatheway, J. C., Ottawa.
 Hatheway, E. P., Ottawa.
 Herzog, A. E., Ottawa.
 Hoffman, J. R., Ottawa.
 Ives, A., Farm Ridge.
 Leland, K. W., Utica.
 Lewis, J. S., Grand Ridge.
 Milligan, Ella Fitch, Ottawa.
 Milling, J. F.,
 *Pettit, J. W., Ottawa.
 Pike, W. A., Ottawa.
 *Provins, C. B., Ottawa.
 Putney, W. G., Serena.
 Roberts, A. J., Ottawa.
 Schoenneshoefer, Dr., Lostant.
 Shaw, A. M., Ottawa.
 Sibbald, Geo., Seneca.
 Smith, C. H., Tonica.
 Smith, W. L., Streator.
 *Smitz, Peters, Leonore.
 Soule, C. E., Sheridan.
 *Starrett, W. T., Marseilles.
 Stout, J., Ottawa.
 Smurr, T. A., Ottawa.
 Taylor, J. J., Streator.
 Tombaugh, L. H., Waukegan.
 Thompson, L., Utica.
 Thornton, N. M., Leland.
 Trainor, Dr., Ransom.
 Underhill, U. H., Seneca.
 Vosburg, D. M., Earlville.
 *Walsh, W. E., Norris.
 *Watts, E. L., Triumph.

*Weis, E. W., Ottawa.
 *Wilcox, G. G., Seneca.
 Wiley, F. H., Earlville.
 Zeising, H., Peru.

LAKE COUNTY MEDICAL SOCIETY.

Meets first Thursday of each month.

L. M. Bergen, President....Highland Park, Ill.
 A. C. Haven, Secretary.....Lake Forest, Ill.

Number of Members, 12.

Number of regular physicians in county, 37.

Number of members in State Society, 2.

LIST OF MEMBERS.

Banton, W. C., Waukegan.
 Bean, L. C., Waukegan.
 Bergen, L. M., Highland Park.
 *Carter, J. M. G., Waukegan.
 Foley, J. C., Waukegan.
 Gavin, E. F., Waukegan.
 Haven, A. C., Lake Forest.
 Knight, F. C., Waukegan.
 Pearce, Beatrice, Waukegan.
 Piper, E. D., Waukegan.
 *Taylor, J. L., Libertyville.

MCLEAN COUNTY MEDICAL SOCIETY.

Meets first Thursday in each month at Bloomington, Ill.

Chas. E. Chapin, President..Bloomington, Ill.
 F. C. Vandervort, Secretary...Bloomington, Ill.

Number of Members, 78.

Number of regular physicians in county, 133.

Number of members in State Society, 18.

LIST OF MEMBERS.

Ayling, C., Gridley.
 Bane, S., Ellsworth.
 Banks, J. H., Atlanta.
 Bath, J. W., Normal.
 Beadles, C. H., Bloomington.
 Chapin, C. E., Bloomington.
 Chapin, H. S., Holder.
 Chapin, S. L., Saybrook.
 Chapman, A. L., Carlock.
 Cody, J. M., Tremont.
 Corr, C. R., Bloomington.
 *Covey, J. E., Lexington.
 Cox, F. B., Farmer City.
 *Douglas, D. T., Colfax.
 Earel, A. M., Bloomington.
 Elder, C. S., Chenoa.
 Elder, G. D., Bloomington.
 Elder, H. W., Bloomington.
 Fox, A. L., Bloomington.
 Fullwiler, J. W., Bloomington.
 Godfrey, F. H., Bloomington.
 *Gordon, P. E., El Paso.
 *Guthrie, W. E., Bloomington.
 Haering, O. E., Bloomington.
 Haigh, John, Le Roy.
 *Haywood, C. E., Cropsy.
 Hill, Wm., Bloomington.
 Holderness, E. P. G., Chenoa.
 Horn, W. L., Arrowsmith.
 *Hull, M. D., Bloomington.
 Hyndman, E. J., Bloomington.
 Jackman, F. O., Bloomington.
 Jordan, N. F., Bloomington.
 Keys, T. W., LeRoy.
 Little, J., Bloomington.

*Mammen, E. B., Bloomington.
 *McCormack, N. K., Normal.
 McKenzie, E., Kappa.
 Meyer, A. W., Bloomington.
 *Mittan, F. J., Colfax.
 Moore, D. O., Bloomington.
 Mullen, T. R., Bloomington.
 Noble, C. M., Bloomington.
 Noble, J. P., McLean.
 Nolton, J. S., Bloomington.
 Nolton, P. M., Bloomington.
 Nusbaum, D. H., Bloomington.

Orner, C. T., Bloomington.

*Park, C. R., Bloomington.

*Parkhurst, F. J., Danvers.

Parkhurst, H., Danvers.

Patch, Wm., Stanford.

Reedy, E. S., Bloomington.

Reedy, W. H., Towanda.

*Sargent, E. E., LeRoy.

Sater, C. C., Atlanta.

Sater, E. E., LeRoy.

Skaggs, L. H., Ellsworth.

Shinn, W. R., Chenoa.

Smith, G. R., Bloomington.

Smith, J. A., El Paso.

*Smith, J. Whitefield, Bloomington.

*Smith, Lee, Bloomington.

*Spear, L. E., Shirley.

Stubblefield, Frank, El Paso.

*Taylor, E. K. M., LeRoy.

*Taylor, J. B., Bloomington.

Tutbill, J. A., LeRoy.

Vandervort, F. C., Bloomington.

Wakefield, F. L., Heyworth.

Ward, M. P., Bellflower.

Welch, F. J., Bloomington.

*White, J. L., Bloomington.

Williams, W. T., Lexington.

Wilson, M. C., Towanda.

Winter, H. A., Saybrook.

Young, A. D., Downs.

MCDONOUGH COUNTY MEDICAL SOCIETY.

Meets first Tuesday in January, April, July and October.

D. A. Blair, President.....Abingdon, Ill.

S. C. Stremmel, Secretary.....Macomb, Ill.

Number of Members, 26.

Number of regular physicians in county, 42.

LIST OF MEMBERS.

Number of members in State Society, 6.

Ackley, N. B., Fandon.
 Ash, John, La Harpe.
 *Bacon, J. B., Macomb.
 Blair, D. A., Abingdon.
 Botts, J. A., Doddsville.
 Coplan, L. S., Colchester.
 Decker, A. V., Colchester.
 Garrison, W. L., Macomb.
 *Grigsby, W. E., Blandinsville.
 Hatch, W. G., Prairie City.
 Hendricks, W. W., Bardolph.
 Holmes, J. B., Macomb.
 *Horrell, C. B., Galesburg.
 Hull, J. R., Good Hope.
 Jenkins, B. D., Macomb.
 *Knappenberger, H., Macomb.
 Kemp, C. H., Colchester.

*Lewis, R. E., Macomb.
 Marrs, R. F., Sciota.
 McGaughey, T. W., Pennington Point.
 Miner, Elis R., Macomb.
 Parker, J. J., Bardolph.
 Polluck, A. D., Macomb.
 Pridmore, G. W., Industry.
 Roark, J. P., Bushnell.
 *Stremmel, S. C., Macomb.

McHENRY COUNTY MEDICAL SOCIETY.
 Harry D. Hull, Secretary..... Menda, Ill.
 Number of regular physicians in county, 37.

MACOUPIN COUNTY MEDICAL SOCIETY.
 Meets third Tuesday in April and October at
 Carlinville.

J. S. Collins, President.....Carlinville, Ill.
 J. P. Mathews, Secretary.....Carlinville, Ill.
 Number of Members, 39.
 Number of regulars in county, 75.
 Number of members in State Society, 18.

LIST OF MEMBERS.

*Allen, C. A., Virden.
 Ask, J. R., Brighton.
 Barnes, J. M., Carlinville.
 *Bartlett, A. T., Virden.
 Bartlett, Willard, St. Louis, Mo.
 Barto, F. C., Plainville.
 *Barto, J. H., Waverly.
 *Bleuler, E. A., Carlinville.
 Burwash, T. W., Champaign.
 Charles, F. H., Shipman.
 Collins, J. S., Carlinville.
 *Corr, A. C., E. St. Louis.
 *Corr, L. H., Carlinville.
 *Cowan, G. R., Girard.
 Cowan, R. S., Girard.
 Crouch, N. A., Chesterfield.
 *Davis, Elias, Nilwood.
 *Denby, J. P., Carlinville.
 Dripps, C. T., Staunton.
 Faith, James, Palmyra.
 *Fischer, C. J. C., Carlinville.
 Gilson, G. H., Shipman.
 Goble, H. W., Greenfield.
 *Horine, T. A., Brighton.
 *Hill, G. E., Girard.
 *Hudson, Ben (Scottville) Denver, Colo.
 Hunter, Joseph, Medora.
 *Kinkead, A. G., Greenfield.
 Kincaid W. L., Greenfield.
 Lockwood, E. K., Denver, Colo.
 *Mathews, J. Palmer, Carlinville.
 *Matthews, J. Pitt, Carlinville.
 McMahan, Martin, Rock Island.
 Maxfield, J. A., Barrs Store.
 *Mitchell, R. J., Girard.
 Murphy, C. H., Chesterfield.
 Penniman, W. L., Shipman.
 *Smith, H. W., Roodhouse.
 Trout, W. A., Atwater.

MONROE COUNTY MEDICAL SOCIETY.
 Meets in March and September at Waterloo, Ill.
 H. Ganter, President..... Waterloo, Ill.
 L. Adelserger, Secretary..... Waterloo, Ill.
 Nominal organization only.
 Number of regular physicians in county, 14.

MONTGOMERY COUNTY MEDICAL SOCIETY
 Meets annually on the first Tuesday in May.
 W. W. Douglas, President.....Hillsboro, Ill.
 Jos. M. Trigg, Secretary.....Farmersville, Ill.
 Number of Members, 16.

Number of regular physicians in county, 48.
 Number of members in State Society, 9.

LIST OF MEMBERS.

Blackwelder, F. C., Litchfield.
 *Clotfelter, G. A., Hillsboro.
 *Cook, W. H., Coffeen.
 *Douglas, W. W., Hillsboro.
 Edwards, W. A., Butler.
 Entrekin, F. M., Coffeen.
 *Fink, I. W., Hillsboro.
 Fullerton, P. J., Irving.
 *Haynes, B., Hurricane.
 Hauser, O., Walshville.
 Hoyt, J. M., Fillmore.
 *Moyer, M. L., Hillsboro.
 *Snell, M. W., Litchfield.
 *Trigg, Joe M., Farmersville.
 *Whitten, T. J., Nokomis.
 Wilson, J. C., Donnellson.

MORGAN COUNTY MEDICAL SOCIETY.
 Meets 2d Thursday each month, Jacksonville
 J. G. Franken, President....Chandlerville, Ill.
 Edward Bowe, Secretary.....Jacksonville, Ill.
 Number of Members, 66.

Number of regular physicians in county 73.
 Number of members in State Society, 35.

LIST OF MEMBERS.

*Adams, A. L., Jacksonville.
 *Allen, C. A., Virden.
 Anderhub, Jos. C., 1037 S. Leavitt St., Chicago
 *Baker, E. F., Jacksonville.
 Barber, J. L., Pittsfield.
 Baxter, G. E., Jacksonville.
 Becholdt, G. F., Pittsfield.
 *Black, Carl E., Jacksonville.
 Black, G. V., 147, 42d Place, Chicago.
 *Boone, H. B., Chandlerville.
 Bowe, Edward, Jacksonville.
 Bradburn B. P., Pearl.
 Bradley, G. W., Waverly.
 *Bremmer, H. A., Ashton.
 *Burnham, A. F., Jacksonville.
 Byers, A. H., New Salem.
 Caldwell, J. C., Murrayville.
 *Campbell, H. C., Jacksonville.
 *Carriel, H. B., Jacksonville.
 *Cole, W. C., Jacksonville.
 Corril, C. W., Merritt.
 *Crane, F. M., Pittsfield.
 *Cromwell, Anna, Jacksonville.
 *Crouch, E. L., Jacksonville.
 *Day, J. A., Winchester.
 Dinsmore, Virginia, Jacksonville.
 *DuHadway, C., Jerseyville.
 Fountain, J. H., Chapin.
 *Franken, J. G., Chandlerville.
 *Frost, L. A., Jacksonville.
 Gailey, B. S., Jacksonville.
 Gillett, P. F., Stillman Valley.
 *Hairgrove, J. W., Jacksonville.
 *Harvey, L. J., Griggsville.
 *Hand, H. W., Whitehall.
 *Hughes, N. J., Waverly.
 *Humphrey, W. D., Virginia.

Jones, H. K., Jacksonville.
 *Main, R. H., Barry.
 Maness, W. G., Nortonville.
 *McLaughlin, W. K., Jacksonville.
 Metcalf, F. H., Franklin.
 Miller, G. W., Woodson.
 Milligan, Josephine, Jacksonville.
 *Moffett, W. T., Blue Mound.
 *Nevill, F. A., Meredosia.
 *Newcomer, J. W., Petersburg.
 *Norbury, F. P., Jacksonville.
 Parker, Wm., Mt. Sterling.
 Perkins, J. B., Franklin.
 *Pitner, T. J., Jacksonville.
 *Prather, J. E., Glasgow.
 Reid, D. W., Jacksonville.
 Reynolds, J. L.,
 Sater, C. C., Atlanta.
 Scott, Ralph B.,
 *Smith, H. W., Roodhouse.
 Spencer, J. H., Murrayville.
 *Thompson, P. C., Jacksonville.
 *Vertrees, C. M., Murrayville.
 Wakely, T. A., Jacksonville.
 Walker, G. W., Bluffs.
 Walker, J. R., Bluffs.
 Wharton, J. E., Jacksonville.
 Winslow, F. C., Jacksonville.
 Wolfe, J. M., Arcadia.

MOULTRIE COUNTY MEDICAL SOCIETY.

Meets second Thursday in each month.
 B. F. McMennamy, President.....Bethany, Ill.
 J. W. Mayes, Secretary.....Sullivan, Ill.
 Number of Members, 19.
 Number of regular physicians in county, 26.
 Number of members in State Society, 11.

LIST OF MEMBERS.

Donovan, J. D., Lovington.
 Grier, D. D., Gays.
 *Hamilton, H., Bethany.
 *Hardinger, J. D., Gays.
 *Hoover, W. K., Lovington.
 *Kimery, C. W., Allenville.
 *Landers, J. R., Cadwell.
 *Loesch, G. E., Lake City.
 Lucas, J. A., Dalton City.
 *Mayes, J. W., Sullivan.
 *McMennamy, B. F., Bethany.
 *Miller, A. D., Sullivan.
 *Miller, E. P., Sullivan.
 *Pyatt, E. A., Bethany.
 *Smith, H. D., Lovington.
 *Stedman, W. E., Sullivan.
 *Vadakin, J. H., Bethany.
 *Weis, J. W., Coles.
 *Wilson, G. H., Dalton City.

OGLE COUNTY MEDICAL SOCIETY.

Meets first Wednesday in January and July.
 G. M. McKenney, President.....Oregon, Ill.
 H. A. Mix, Secretary.....Oregon, Ill.
 Number of regular physicians in county, 32.

PIKE COUNTY MEDICAL SOCIETY.

Meets each month.
 J. Harvey, President.....Griggsville, Ill.
 R. H. Main, Secretary.....Barry, Ill.
 Number of Members, 27.

Number of regular physicians in county, 66.
 Number of members in State Society, 5.

LIST OF MEMBERS.

Allen, C. I., Milton.
 Barber, J. L., Pittsfield.
 Beavers, C. E., Barry.
 Beavers, Virgil, Beverly.
 Bechdoldt, G. F., Pittsfield.
 Bradburn, B. P., Pearl.
 Brown, P. W., Fish Hook.
 *Crane, F. M., Pittsfield.
 *Duffield, H. T., Pittsfield.
 Dunn, Harvey, Perry.
 Garrison, W. H., Pearl.
 *Harvey, L. J., Griggsville.
 Henry, G. H., El Dara.
 Humpert, G. A., Pittsfield.
 *Kaylor, T. D., Barry.
 *Main, R. H., Barry.
 McComis, G. N., New Canton.
 Motley, E. R., Kinderhook.
 Peacock, S. B., Bayliss.
 Rainwater, J. H., New Canton.
 Reynolds, W. F., El Dara.
 Scott, J. D., Time.
 Shastid, T. W., Pittsfield.
 Shastid, W. E., Pittsfield.
 Smith, R. O., Pittsfield.
 Sykes, Jas., Beverly.
 Taylor, J. C., Hull.

SALINE COUNTY MEDICAL SOCIETY.

Meets first Monday in each month.
 J. W. Tallman, President.....Harrisburg, Ill.
 J. R. Baker, Secretary.....Harrisburg, Ill.
 Number of Members, 20.
 Number of regular physicians in county, 44.
 Number of members in State Society, 0.

LIST OF MEMBERS.

Baker, J. R., Harrisburg.
 Ballance, J. W., Harrisburg.
 Blackman, Sam, Stone Fort.
 Capel, J. V., Harrisburg.
 Cheaney, S. L., Harrisburg.
 Empson, M. D., Hartford.
 Green, A. E., Harrisburg.
 Harris, Wesley, Carrier's Mills.
 Hawkins, LeRoy, Mitchellville.
 Hudson, L., Carrier's Mills.
 Johnson, Thomas, Galatia.
 McCormic, L., Mitchellville.
 Miller, J. B., South America.
 Parish, L. N., Harrisburg.
 Provine, E. M., Harrisburg.
 Rose, J. H., Harrisburg.
 St. John, D. F., Stone Fort.
 Swan, W. S., Harrisburg.
 Turner, C. W., Harrisburg.
 Williams, H. O., Galatia.

SANGAMON COUNTY MEDICAL SOCIETY.

Meets monthly on second Monday at Springfield.
 J. N. Dixon, President.....Springfield.
 B. B. Griffith, Secretary.....Springfield.
 Number of members, 64.

Number of regular physicians in county 128.
 Members of State Medical Society, 45.

LIST OF MEMBERS.

*Babb, Helen, Springfield.

*Babcock, O. B., Springfield.
 Baine, Paul, Pleasant Plains.
 *Bartlett, E. P., Springfield.
 *Barker, A. W., Springfield.
 *Berry, R. D., Springfield.
 *Bowcock, C. M., Springfield.
 *Brayshaw, Joseph, Berlin.
 *Bradley, M. M., Chatham.
 *Brittin, A. L., Athens.
 Brittin, Wm. A., Auburn.
 *Buck H. B., Springfield.
 Correll, L. S., Springfield.
 Compton, Chas. C., Springfield.
 *Crocker, G. L., Springfield.
 *Dixon, J. N., Springfield.
 *Drennan, D. A., Springfield.
 *Duncan, J. M., Pawnee.
 *Egan, J. A., Springfield.
 Fisher, Frank, Springfield.
 *Griffith, B. B., Springfield.
 Grigsby, F. M., Springfield.
 Guttery, W. V., Middletown.
 *Hagler, A. L., Springfield.
 *Hagler, E. E., Springfield.
 *Hill, H. C., Springfield.
 *Hopkins, S. R., Springfield.
 *James, A. C., Springfield.
 Jones, Mack, Springfield.
 *Kelly, J. W., Springfield.
 *Kelly, M. T., Springfield.
 *Kerr, Chas., Springfield.
 *Kreider, G. N., Springfield.
 *Langdon, W. O., Springfield.
 *Leeds, L. L., Lincoln.
 *Lindsay, V. T., Springfield.
 *McClelland, R. E., Williamsville.
 McElfresh, C. H., Springfield.
 McMillan, J. C., New Berlin.
 *McTaggart, T. A., Pawnee.
 *Munson, S. E., Springfield.
 *Nelson, C. S., Springfield.
 *O'Hara, F. S., Springfield.
 *Ottis, D. M., Springfield.
 *Pierce, J. R., Cornland.
 *Prince, A. E., Springfield.
 *Prince, J. A., Springfield.
 *Rourke, S. Ellen, Lincoln.
 *Ryan, Walter, Springfield.
 *Shutt Margaret, Springfield.
 Stericker, G. F., Springfield.
 Stuttle, Albert L., Williamsville.
 *Taylor, A. D., Springfield.
 Taylor, I. H., Springfield.
 Taylor, J. L., Springfield.
 *Taylor, L. C., Springfield.
 *Taylor, Percy, Springfield.
 *Trigg, Joseph M., Farmersville.
 Turley, F. C., Springfield.
 Utley, J. H., Springfield.
 Vernon, G. H., Farmingdale.
 Walsh, C. H., Springfield.
 Walters, C. H., Springfield.
 *Young, W. A., Springfield.

SCHUYLER COUNTY MEDICAL SOCIETY.

Meets monthly.

Number of Members, 6.

Number of regular physicians in county, 20.

J. A. Harvey, President.....Rushville, Ill.
 A. W. Ball, Secretary.....Rushville, Ill.
 Number of members in State Society, 3.

LIST OF MEMBERS.

*Ball, A. W., Rushville.
 *DeGraff, E. B., Rushville.
 Harvey, J. A., Rushville.
 Harvey, W. F. Rushville.
 Roberts, Roy, Rushville.
 *Speed, J. N., Rushville.

SHELBY COUNTY MEDICAL SOCIETY.

Meets annually.

Wm. J. Eddy, President.....Shelbyville, Ill.
 A. G. Mizell, Secretary.....Shelbyville, Ill.

Number of Members, 12.

Number of regular physicians in county, 44.

Number of members in State Society, 7.

LIST OF MEMBERS.

Brunck, C. H., Windsor.
 *Eddy, Wm. J. Shelbyville.
 Fleming, W., Shelbyville.
 *Fringer, George W., Pana.
 Huff, W. J., Shelbyville.
 *Mixell, A. G., Shelbyville.
 *Rhodes, George W., Shelbyville.
 *Rockey, A. P., Assumption.
 *Thompson, Theo., Shelbyville.
 Van Reed, D. R., Shelbyville.
 Waggoner, J. G., Shelbyville.
 *Wilson, W. G., Shelbyville.

ST. CLAIR COUNTY MEDICAL SOCIETY.

Meets monthly.

W. H. McLean, President.....E. St. Louis
 J. P. Stack, Secretary.....E. St. Louis

Number of Members, 22.

Number of regular physicians in county, 178.

Number of members in State Society, 6.

LIST OF MEMBERS.

Bechtold, L. J., Belleville.
 Better, J. G., Belleville.
 Carr, M. S., E. St. Louis.
 *De Courcey, J. O., E. St. Louis.
 De Haan, H. J., E. St. Louis.
 *Green, Albert, Rockford.
 Gunn, A. B., Belleville.
 *Kohl, Julius, Belleville.
 McLean, W. H., E. St. Louis.
 *Portuondo, B., Belleville.
 *Raab, E. P., Belleville.
 Rayhill, C. G., Belleville.
 Chas. Rembe, Mascoutah.
 Schlermitzauer, Adolph, Millstadt.
 Schlermitzauer, W. C., Freeburg.
 Stack, J. P., E. St. Louis.
 *Starkel, C. H., Belleville.
 Stookey, L. P., Belleville.
 Twitchell, B. E., Belleville.
 Waugelin, H. E., Belleville.
 *Wilhelmy, C. F. W., E. St. Louis.
 Wiggins, J. L., E. St. Louis.

STEPHENSON COUNTY MEDICAL SOCIETY.

J. B. Leitzell, President.....Orangeville, Ill.
 J. F. Fair, Secretary.....Freeport, Ill.

Number of Members, 36.

Number of regular physicians in county, 52.

Number of members in State Society, 7.

LIST OF MEMBERS.

Best, E. H., Freeport.
 Bobb, D. B., Dakota.
 Brundage, M. S., Durand.
 Burns, R.-J., Freeport.
 Burwell, E. E., Freeport.
 Carpenter, E. A., Baileyville.
 Counell, D. R., Davis.
 Fair, J. F., Freeport.
 *Firestone, J. H., Freeport.
 Frisbie, R. L., Freeport.
 *Haines, G. M., Durand.
 Haughey, John, Rock City.
 Hoag, E. J., Ridott.
 *Hutchins, W. A., Orangeville.
 Leitzell, C. P., Cedarville.
 Leitzell, J. W., Orangeville.
 Martin, K. S., Dakota.
 McGrew, F. A., Davis.
 Mease, D. C. L., Freeport.
 Peck, W. B., Freeport.
 Poling, J. A., Freeport.
 *Ridout, W. J., Freeport.
 Roach, D. C., McConnells.
 *Salter, Allen, Lena.
 Saucerman, Dr., Winslow.
 Scott, C. C., Winslow.
 Sheetz, C. P., Freeport.
 *Stealey, J. H., Freeport.
 Stiver, R. J., Lena.
 Stiver, W. B., Freeport.
 Thompson, S. C., Cedarville.
 Torey, E. J., Freeport.
 Vaigh, L. G., Freeport.
 Waggoner, W. H., Dakota.
 Wilson, A. A., Davis.

VERMILION COUNTY MEDICAL SOCIETY.

Meets monthly, second Friday evening in Danville, Ill.

E. B. Cooley, President.....Pilot, Ill.
 E. E. Clark, Secretary.....Danville, Ill.

Number of Members, 38.

Number of regular physicians in county, 117.

Number of members in State Society, 3.

LIST OF MEMBERS.

Barton, P. H., Danville.
 Becker, H. F., Danville.
 Black, S. M., Westville.
 Brown, M. S., Danville.
 Brown, Walter, Danville.
 Butz, J. E. P., Potomac.
 Clark, E. E., Danville.
 Clinch, J. H., Danville.
 Cloyd, F. N., Westville.
 Cloyd, J. P., Georgetown.
 Cloyd, R. A., Catlin.
 Cochran, W. A., Danville.
 Cooley, E. B., Pilot.
 Fairhall, Joseph, Danville.
 Fletcher, M. S., Ridge Farm.
 *Dixon, W. E., Sidel.
 French, T. P., Danville.
 Glidden, S. C., Danville.
 Gur, J. M., Danville.
 Hickman, J. M., Westville.
 Johnston, E. A., Danville.

*Jones, LeRoy, Hoopeston.
 Lamon, C. E., Fairmount.
 Leitzbach, A. J., Fairmount.
 Michael, O. W., Muncie.
 Moore, Samuel, Danville.
 Moore, W. J., Danville.
 Moorehouse, H., Danville.
 O'Ferrell, Robert, Danville.
 O'Haver, J. W., Danville.
 Poole, G. W., Danville.
 Regan, Theo., State Line.
 Sims, S. M., Danville.
 Taylor, B., Westville.
 Walton, T. E., Danville.
 *White, A. P., Danville.
 Worthington, R. P., Indianola.
 Wright, J. W., Fairmount.

WABASH COUNTY MEDICAL SOCIETY.

Meets quarterly.

J. Schneck, President.....Mt. Carmel, Ill.

G. C. Kingsbury, Secretary.....Mt. Carmel, Ill.

Number of Members, 20.

Number of regular physicians in county, 22.

Number of members in State Society, 6.

LIST OF MEMBERS.

Craig, C. C., Patton.
 Friend, Wm., Sr., Lancaster.
 *Friend, Wm., Jr., Sumner.
 Gray, F. S., Allendale.
 Gilliatt, C. G., Allendale.
 Kingsbury, G. C., Mt. Carmel.
 *Leeds, H. M., Allendale.
 Leeds, N., Bellmont.
 Lescher, L. J., Mt. Carmel.
 Lovellette, Harry, Keensburg.
 *Manley, P. G., Mt. Carmel.
 *Maxwell, J. B., Mt. Carmel.
 McClurkin, J., Mt. Carmel.
 *McMurray, R. J., Linn.
 Moon, Dr., Bellmont.
 *Schneck, J., Mt. Carmel.
 Schneck, S. W., Mt. Carmel.
 Trego, J. D., Bellmont.
 Utter, J. C., Mt. Carmel.
 Wallar, F. K., Bellmont.

WARREN COUNTY MEDICAL SOCIETY.

Meets semi-annually.

E. J. Blair, President.....Monmouth, Ill.

A. G. Patton, Secretary.....Monmouth, Ill.

Number of Members, 21.

Number of regular physicians in county, 37.

Number of members in State Society, 8.

LIST OF MEMBERS.

Ball, R. M. C., Monmouth.
 Blair, E. J., Monmouth.
 Griffith, J. B., Swan Creek.
 Graham, A. R., Little York.
 Holliday, W. S., Monmouth.
 Hornbeck, N. B., Youngstown.
 Kilgore, J. C., Monmouth.
 Linn, E. C., Monmouth.
 Marshall, H., Monmouth.
 *McClanahan, J. M., Kirkwood.
 McCutcheon, J. F., Alexis.
 *McIntosh, A. J., Allendale.
 *Mitchell, E. L., Roseville.
 Nichol, A. R., Monmouth.

Patton, A. G., Monmouth.
 Schreck, John, Cameron.
 *Skinner, C. A., Monmouth.
 *Standley, E. B., Alexis.
 *Standley, J. N., Alexis.
 *Sherrick, C., Monmouth.
 *Wallace, F. E., Monmouth.

WILL COUNTY MEDICAL SOCIETY.

Meets second Tuesday of each month.

G. M. Peairs, President.....Joliet, Ill.
 Thos. J. Wagner, Secretary.....Joliet, Ill.

Number of Members, 26.

Number of regular physicians in county, 80.

Number of members in State Society, 7.

LIST OF MEMBERS.

Bentley, R. S., Joliet.
 Bowles, M. K., Joliet.
 *Branon, Londus, Joliet.
 Clyne, J. A., Joliet.
 Cushing, M., Joliet.
 *Dougall, Wm., Joliet.
 Ferguson, L. T., Joliet.
 Flexer, J. R., Joliet.
 Frederick, L. J., Joliet.
 Henry, Geo., Petone.
 *Kelley, M. J., Joliet.
 Larned, E. R., Joliet.
 *LeSage, P., Joliet.
 McClanahan, M., Manhattan.
 Patterson, H. A., Joliet.
 *Peairs, G. M., Joliet.
 Richards, Wm., Joliet.
 Rulien, P. G., Joliet.
 Schnessler, H. G., Joliet.
 Stephens, H., Joliet.
 Stewart, W. B., Joliet.
 Wagner, Thos. H., Joliet.
 *Werner, F. W., Joliet.
 *Williamson, M. F., Joliet.
 *Woodruff, H. W., Joliet.

WILLIAMSON COUNTY MEDICAL SOCIETY.

Meets first Monday, in January, April, July and October.

W. H. Bentley, President.....Marion, Ill.

G. W. Evans, Secretary.....Marion, Ill.

Nominal organization only.

Number of regular physicians in county, 35.

WHITE COUNTY MEDICAL SOCIETY.

Meets second Thursday in January, April, July and October.

W. W. Apple, President.....Carmi, Ill.

W. A. Steele, Secretary.....Carmi, Ill.

Number of Members, 19.

Number of regular physicians in county, 45.

Number of members in State Society, 2.

LIST OF MEMBERS.

Allen, W. A., Epworth.
 Burdick, L. G., Greyville.
 Crebs, E. S., Carmi.
 Cremeens, Geo., Springerton.
 Floyd, T. W., Greyville.
 Foster, I. A., Herald.
 *Hopkins, J. N., Burnt Prairie.
 Lehman, J. L., Carmi.
 *Legier, J. T., Carmi.

Long, Felix, Enfield.
 Mayhew, R. A., Carmi.
 McIntire, J. C., Maunie.
 Neal, E. G., Enfield.
 Parker, V. H., Carmi.
 Smith, J. R., Carmi.
 Staley, Clinton, Philipstown.
 Steele, W. A., Carmi.
 Wakeford, Chas., Carmi.
 Wiley, F. W., Emma.

WINNEBAGO COUNTY MEDICAL SOCIETY.

Meets monthly.

T. N. Miller, President.....Rockford, Ill.

J. H. Frost, Secretary.....Rockford, Ill.

Number of Members, 43.

Number of regular physicians in county, 56.

Number of members in State Society, 10.

LIST OF MEMBERS.

*Allaben, J. E., Rockford.
 Anderson, B. C., Rockford.
 Anderson, S. S., Rockford.
 *Andrus, S. C., Rockford.
 Brookings, C. M., Rockford.
 Calkins, F. W., Rockford.
 Catlin, E. P., Rockford.
 *Catlin, Sanford R., Rockford.
 Cole, I. Vincent, Rockford.
 Commings, A. F., Rockford.
 Coy, R. E., Rockford.
 Cullhane, T. H., Rockford.
 *Fitch, W. H., Rockford.
 *Fringer, W. R., Rockford.
 Frost, J. H., Rockford.
 Gillette, P. F., Stillman Valley.
 *Green, Albert, Rockford.
 *Haines, G. M., Durand.
 Helm, Clinton, Rockford.
 Helm, W. B., Rockford.
 Keith, Darwin, Rockford.
 Kimball, F. H., Rockford.
 Labaume, Lydia H., Rockford.
 Leland, Lena C., Rockford.
 Lichty, D., Rockford.
 *Markley, P. L., Rockford.
 Miller, T. N., Rockford.
 Moyer, C. W., Rockford.
 Ochsner, E. E., Rockford.
 Park, W. E., Cherry Valley.
 Penniman, David B., Argyle.
 Ransom, Penn. W., Rockford.
 Ransom, W. L., Rockford.
 *Richings, Henry, Rockford.
 Rohr, G. W., Rockford.
 Sager, R., Rockford.
 *Starke, C. V., Rockford.
 Sutherland, Chas., Rockton.
 Tibbets, L., Rockford.
 Wait, D. V., Rockton.
 Weld, F. J., Rockford.
 Winn, Geo. L., Rockford.

WOODFORD COUNTY MEDICAL SOCIETY.

Meets first Tuesday in May.

C. E. Davis, President.....Peoria, Ill.

Frank Stubblefield, Secretary.....El Paso, Ill.

Nominal organization only.

Number of regular physicians in county, 25.

ILLINOIS Medical Journal

The Official Organ
of the
State Medical Society



A Monthly Bulletin
Edited by the
Publication Committee

Printed by
THE ILLINOIS STATE JOURNAL COMPANY.

Entered in the Springfield Postoffice as Second-Class Matter.

Volume L. New Series, Vol. II. } Number 8.	Springfield, Ill., February, 1901.	{ Subscription, \$3 a Year. Single Copies, 25 Cents.
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The names of 1200 members of City and District Medical Societies in this issue.

TABLE OF CONTENTS.

ORIGINAL ARTICLES.	CORRESPONDENCE.
Chylous Ascites—Robert J. Christie, Jr., M. D., Quincy.....	Letter from J. Palmer Matthews, M. D., Carlinville.....
387	413
Anaesthetics—Wm. H. Maley, M. D., Galesburg.....	Suprarenal Capsule in Organic Heart Disease—Samuel Floersheim, M. D., New York.....
389	413
Complications and Sequelae of Scarlet Fever—M. S. Marcy, M. D., Peoria.....	Paralysis of the Sphincters—Edm. Andrews, M. D., Chicago.....
391	414
The Action of the Kidneys in Health and Disease—J. Palmer Matthews, A. M., M. D., Carlinville.....	Letter to Governor Yates—Committee of Judicial Council.....
394	414
Hypertrophy of the Pharyngeal or Luschka's Tonsil; Adenoid Vegetations; Enlargement of the Third Tonsil—Edw. T. Dickerman, M. D., Chicago.....	Brief Notes from the Pacific Coast—J. H. Hollister, M. D., Chicago.....
396	414
Imbibition of Water in Relation to Some Forms of Disease—W. T. Moffett, M. D., Blue Mound.....	
399	
If the Cause is Removed the Cure Will Follow—W. J. Chenoweth, M. D., Decatur..	
401	
Farther Consideration of State Medicine and Sanitation—A. C. Corr, M. D., Carlinville.....	
405	
	COUNTY AND DISTRICT SOCIETIES.
	Chicago Medical Examiners' Association..
	416
	Chicago Academy of Medicine.....
	416
	German Medical Society.....
	416
	Decatur Medical Society.....
	417
	Chicago Pathological Society.....
	417-419
	Clinton County Medical Society...
	417
	Crawford County Medical Society.....
	418
	Sangamon County Medical Society.....
	419
EDITORIALS.	Legislative Committee Report.....
Local Societies.....	421
Magnetic Healers.....	Corrigenda.....
412	422
A Notable Election.....	Members of City and District Societies..
412	422-432

ILLINOIS STATE MEDICAL SOCIETY.

NEXT ANNUAL MEETING WILL BE HELD IN PEORIA,
MAY 21, 22, 23, 1901.

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The Illinois Medical Journal.

The Official Organ of The Illinois State Medical Society.

VOL. L.
New Series, Vol. II. }
No. 9.

Springfield, Ill., February, 1901.

{ SUBSCRIPTION
\$3.00 A YEAR.

A CASE OF CHYLOUS ASCITES.*

BY ROBERT J. CHRISTIE, JR., M. D., QUINCY.
Consulting Surgeon to Blessing Hospital Surgeon to the
German Old Folks, M. E. Home, etc.

The following day after relating a curious and perplexing case to a medical colleague I received a telephone message from him directing my attention to a brief article in the Journal of the American Medical Association, which, as an introductory to this report, I will read.

"An accumulation of fluid in the peritoneal cavity may result from either local inflammatory conditions, or more exclusively vascular states. In the first instance, it occurs as an exudation; in the latter as a transudation. The second of these conditions may develop in consequence of venous blood stasis from whatever cause, general or local, or of undue permeability of the veins, such as is associated with nephritis, tuberculosis, carcinoma and other cachectic states. Exudates and transudates are usually clear, though the former are likely to contain flocculi of lymph, while their specific gravity is the higher—above 1014—and they contain the more albumin. The effusion may be bloody, and contain red corpuscles. Occasionally, ascitic fluid is whitish, like milk. This appearance may be due either to the presence of fat or chyle. The former has been observed in connection with tuberculosis or carcinoma of the peritoneum, when large numbers of fat-cells are thrown off and become admixed with and partly dissolved in the fluid present. Chylous Ascites may result from rupture of lacteals or the thoracic duct, although it has been observed also in connection with carcinoma of the abdominal viscera."

(Journal of American Medical Association, Feb. 3, 1900.)

Mr. C., aged 55, American, native of New Hampshire, veteran of Civil war, twice married, father of six children, cabinet maker by trade, came under my observation December 18, 1899. Family history negative. Personal history unworthy of note except that he was wounded in war in the left arm and that he had an inguinal hernia of left side for which he had been unsuccessfully treated in 1892 for radical cure. The history of the case previous to December 18, the date upon which I saw him in consultation, is as follows: beginning about six weeks previous there had been a gradually increasing pain and fullness in the gastric and right hypochondriac region which did not at first disturb him greatly, but at the end of three weeks had become so distressing as to compel him to discontinue work. About this time there began to develop a general enlargement of abdomen which was pronounced ascites. This briefly describes the case up to December 18 when I saw him.

December 18, patient able to be up and around the house, appetite fair. Subjective symptoms; slight pain in abdomen, some dyspnoea and slight nausea. A general physical examination revealed this condition: In the dorsal decubitus a regularly distended abdomen rather flat on summit, dull on percussion at summit and down sides to line of horizontal plane from symphysis pubis to ensiform cartilage at which point on either side resonance was elicited. No oedema of hands, feet or face. This was confusing. It was not a cyst of the pancreas nor a hydronephrosis for obvious reasons. Having had experience with other cases—one tubercular peritonitis and two of malignant disease of the mesenteries in which this peculiar phenomenon was observed, that is, the ascitic fluid displacing the resonance downward, we concluded that this must be one or the

*Read at the Fiftieth Annual Meeting of the Illinois State Medical Society, Springfield, May 15, 1900.

other, of these conditions and decided to perform paracentesis. The result of this operation was clear ascitic fluid. On palpation, after the fluid was removed, there was felt above and to the right of the umbilicus a hard nodular tumor with irregular edge below, beneath which the fingers could be thrust. Operative exploration was agreed upon. Patient removed to Blessing Hospital next day and operated January the 1st, 1900. Not to weary you with the subsequent details of the clinical features which have very little bearing upon the second phase of a case, will describe macroscopic and tactile appearance inside the abdomen and pass on to the time of the development of the chylous ascites. Upon opening the abdomen in the median line from the ensiform cartilage to below the umbilicus and after the escape of a quantity of fluid, there was visible a nodular agglutinated mass of intestines and omentum in the region above described. After receiving the concordant opinions of Doctors Center, Gill and Montgomery, assisting in the case, that it was a sarcomatous neoplasm, closed the abdomen and returned patient to bed.

The foregoing remarks are of course prefatory. January 25 the abdominal fluid had reaccumulated to such an extent that it was necessary to again resort to paracentesis. Aspirator introduced in median line between umbilicus and symphysis, after emptying the bladder. About two gallons of light, slightly tinged with blood, fluid was obtained. This reaccumulation and tapping recurred at intervals of about ten days up to March 5, the date of his death. From January 18, the emaciation was gradual and very rapid and he evidently died not so much from the malignant growth, which was progressive, as from absolute starvation. Autopsy; extreme emaciation, rigor mortis complete. The necropsy was made with a view of determining whether the thoracic duct had been ruptured or whether it was obstructed by the cancerous encroachment. The carcino-

matous involvement seemed general. The mesenteric glands and peritoneal investments were matted together in the floor of the abdomen. It was only after ligating the aorta and vena cava and adjacent tissue in mass just above the receptaculum chyli that the thoracic duct could be found. A small probe could not be made to follow its canal for more than three or four inches upward. After ligating, severing and elevating the mass above as below and the thoracic duct being found, the probe on attempting passage was arrested at about the same point as it had been on attempting to pass it from below. While the patency of the duct throughout its entire length could not be demonstrated, the fact is not regarded as significant for the reason that it is considered as improbable that the thoracic duct could have been compressed to such an extent without the aorta and vena cava suffering from the same cause. This was not apparent. The receptaculum chyli was the seat of very extensive involvement, to such an extent that instead of its being a receptacle it was a complete mass without any cavity.

How then, did the chyle get into the abdominal cavity? It has not been demonstrated that the thoracic duct was not ruptured nor, positively, that it was not occluded; either condition would justify the conclusion that it was a transudation as a natural consequence of mechanical obstruction to the chyle current. It was not my purpose to discuss the theories of Chylous Ascites nor to advance any hypothesis that might explain it but I cannot refrain from offering the opinion that this case was one of mechanical transudation. The obstruction was either in the duct near its origin or was a general involvement of the lacteal ducts. It seems very evident that any lesion of the lacteal glands would so interfere with their function that no chyle could appear on their distal side at all. The opinion that this was chyle cannot be questioned as it was confirmed and verified by both chemical and microscopical analysis.

ANÆSTHETICS.*

BY WM. H. MALEY, M. D., GALESBURG.

In presenting this paper, our chief object shall be to give the views of recent writers on the subject, showing wherein they disagree; to arouse a free discussion and make a plea for the anaesthetic specialist.

Prof. Wyeth employs chloroform in about 75 per cent of all cases and uses the Esmarch mask. He invariably gives a hypodermic of Morphine Sulphate gr. 1/4 and Atropia gr. 1/150 about fifteen minutes before anaesthesia is commenced, to stimulate the heart and allay the anxiety of the patient. Average time of obtaining complete narcosis 15 to 20 minutes.

When ether is employed he always uses it with the Ormsby inhaler or some form of apparatus which does not permit the passage of atmosphere over the ether vapor and thence directly into the respiratory tract.

He considers the Allis instrument extremely objectionable on account of the passage of atmosphere over the ether vapors, lowering the temperature of the inspired air very considerably, which upon entering the respiratory tract often produces severe irritation and sometimes fatal inflammations.

Dr. Bennet, (Journal American Medical Association, March 24, 1900) Anaesthetist to New York and Roosevelt hospitals, lays great stress on the method of administering anaesthetics and claims to have experienced little or no difficulty in anaesthetizing patients with small quantities of ether by the close method, who had previously had enormous quantities of ether administered by the open method with complete failure.

A writer in the Medical Dial, September 1899, after entering into a careful consideration of the chemical composition of chloroform and ether, concludes that it is absolutely necessary that the two anes-

thetics be administered in different ways. He would exclude as far as possible, all the air in the use of ether.

Dr. C. A. Temple, Toronto, (N. Y. Medical Journal, March, 19, 1900) states that the A. C. E., mixture given with an open inhaler is the best anesthetic for children up to five years of age. Providing there are no contra-indications, ether should be chosen after that age. "Ether unless contra-indicated by some pre-existing disease should be the anesthetic of election, as statistics prove it to be much safer than chloroform."

Whenever administering chloroform, he always anticipates danger and insists on a careful preparation and the hypodermic injection of cardiac stimulants—strychnine being the best.

Dr. I. C. Herb (Tri-State Medical Journal and Practitioner, Feb. 1899) in his report of one thousand consecutive cases in the service of Dr. Ochsner at Augustana Hospital, Chicago, always uses the Esmarch mask covered with three or four layers of gauze. The same mask for both chloroform and ether and the same method of administration, namely the drop method. He considers the Esmarch mask superior to any other for the very reason that it allows an abundant admixture of air, which is very desirable during, as well as after anaesthesia to avoid subsequent complications. No drugs are ever used either before or during anaesthesia. The anaesthetic is started with chloroform and as soon as patient is asleep ether is substituted.

Dr. Melish (N. Y. Medical Journal) has not much use for the majority of the inhalers now on the market and states that an inhaler made on the principle of the Esmarch chloroform mask is the cleanest, safest and best for ether as well as chloroform.

Dr. Deutsch (Anaesthetist to Missouri Medical College) of St. Louis, after trying both the open and closed methods of etherization thinks the open way to be the better and concludes the Allis inhaler which allows a large amount of pure air

*Read at the Fiftieth Annual Meeting of the Illinois State Medical Society, Springfield, May 16, 1900.

produces a safer anæsthesia and is certainly much pleasanter for the patient.

Whatever difference of opinion there may be as to the anæsthetic and method of administration, all are about agreed that the pupillary reflexes are the infallible guide to the stage of narcosis. A dilated pupil which reacts to light, shows incomplete anæsthesia. A dilated, immovable pupil is danger staring you in the face and a signal to withdraw the anæsthetic at once. A few inspirations of fresh air will usually suffice. A contracted, immovable pupil is a reliable indicator of complete surgical narcosis.

When it is possible the anæsthetist should become acquainted with the patient some little time before the operation so that he can, to a certain extent, learn his habits, note his temperament and by his own conduct, gain the complete confidence of his patient so that the patient will not have the slightest worry or hesitancy about placing himself entirely in his care.

The anæsthetizer should know beyond a doubt that he has a chemically pure drug, as many of the distressing symptoms both during and after the administration are due to impurities. There was a time when we had to depend entirely upon one brand, but I feel that no apology is necessary when I state that Mallinkrodt's chloroform and ether has been perfectly satisfactory to me.

I beg to differ with some, who, it seems to me, have gotten into a habit of using one or the other of the anæsthetics in all cases regardless of conditions. It seems to me that this is not at all scientific and that the selection of the individual drug to be used can only be decided upon after careful consideration of the nature of the operation, the age, sex and accompanying conditions of the patient.

While children, as a rule, bear chloroform remarkably well, it must be well diluted with air and administered drop by drop. It places them so quickly in such a calm and deep anæsthesia that an overdose can be given almost in a moment. This is one of the places where the safety

of chloroform depends upon the skill of the administrator.

It has been my good fortune for a number of years to be associated with two or three surgeons whose skill is so well known that they need no introduction here. During that time, I think I have administered more anæsthetics than any other person outside of a regular hospital anæsthetist. I don't think any man ever had a more wholesome dread of anæsthesia than the chief operator and he may be well proud of it, for during his enormous surgical practice not a single death can in any way be traced to the anæsthetic: A large number of his operations have been emergency cases and operated upon under the most unfavorable circumstances. There are two reasons for this remarkable record. First. That fear and extreme caution. Second. Celerity: For no other surgeon ever performed the same operation in shorter time.

As an author usually dedicates his book to some life long friend or benefactor I now bow my acknowledgements and give him credit for any proficiency or success I may have attained.

While almost everything pertaining to our profession has been rapidly improving and advancing: While there are specialists for almost every known malady or affliction, we hear of but few anæsthetic specialists. Is it not time that this most important subject should receive more careful consideration?

In the first place how few of our medical colleges have made the slightest effort or any pretensions to having anæsthetics even mentioned in their curriculum. Very small, indeed, is the per cent of students who upon graduating from a medical college have had the opportunity of administering a single anæsthetic under the supervision of an expert. Why it is that such an important subject should be almost totally ignored is hard to see. There are a great many physicians who fully comprehend the dangers of anæsthesia and realizing that they have not received the training, do not consider themselves

thoroughly qualified to attempt it and show their good judgment by refusing to act.

It is only by study, careful observation, frequent experience and practice long continued, that a person can become qualified to intelligently administer anæsthetics. Even then many fail. Text books are of as little value in the administration of anæsthetics as deductions based solely upon laboratory experiments. For we know how unreliable are many of those experiments when employed in pathological conditions.

The anæsthetist must have that self confidence which is a legitimate offspring of knowledge. Knowledge of the dangers that might arise during administration and ability to combat them when they occur.

When we come right down to the matter of an anæsthetic for one of ourselves the selection of an operator, except in an operation requiring exceptional skill, is secondary to that of an anæsthetizer. Not only must the anæsthetist gain the confidence of the patient, but the confidence of the operator. When there is such confidence the operator will not fail to heed the anæsthetizers warnings. Neither will he console himself with the thought that the anæsthetizer is "only frightened."

Other things being equal, the operator who, not knowing the condition of the patient, will endeavor to "boss" the anæsthetic should be silenced as quickly as possible. The anæsthetizer, not the operator, is the person who is held responsible for the patient's life as far as the anæsthetic is concerned; he should not make the slightest effort to shift this responsibility, but should put all his thought and effort on the anæsthetic, being totally oblivious to everything else.

The young man who considers himself humiliated by being asked to administer the anæsthetic instead of assist at the operation, is certainly not qualified and too ignorant to appreciate the honor bestowed upon him. For the choice of an anæsthetizer by the operator should be the highest honor he can bestow upon any

one in connection with the operation. It should be an expression of his confidence and consequently he should expect the best conditions possible for a successful operation compatible with safety to the life of the patient.

It seems to me that we are trifling with life if, unqualified, we attempt that, which takes a person to the edge of death, and holds him there during the pleasure of the operator.

Is there any other position in our profession more responsible? Is there any other position requiring more skill or more loudly demanding experts?

COMPLICATIONS AND SEQUELAE OF SCARLET FEVER.*

BY M. S. MARCY, M. D., PEORIA.

The complications of scarlet fever are numerous and treacherous, and in consequence of the seriousness of the sequelae and fatality among young children it is a disease to be dreaded as much if not more than any with which the physician comes in contact.

Small-pox has been robbed of much of its terror by its antagonist, vaccine virus. The mortality of diphtheria has been greatly reduced during the past few years through the agency of antitoxin. While we have the antistreptococcus serum, spoken very highly of by Marmorek who claims to have reduced the mortality among his patients from ten to fifteen per cent, there are other writers who do not speak so favorably of the serum, and it is certainly true that it is far from being a specific for this disease. Therefore the field is still open and waiting for some one to immortalize his name by making further investigation, and conquests along this line, to the extent that Jenner, Klebs and Loeffler have in their noble legacy left to the present and the coming generations.

Owing to the guarded prognosis the physician is compelled to make, it is but little

*Read at the Fiftieth Annual Meeting of the Illinois State Medical Society, Springfield, May 16, 1900.

comfort he has to offer the grief stricken family where this dread disease has entered the home, especially when he stops to consider the long train of complications which are so apt to follow and which are so destructive to the various organs, not only leaving them in a crippled condition but frequently destroying them and thus depriving the patient of their use for the remainder of their life.

Much lighter indeed would be the task of the physician if he were able to state truthfully to the anxious parents that after the acute symptoms had subsided the patient would enjoy his usual health, and that no lasting evil results would follow any more than there would be in a case of malaria. However painful it may be it is none the less his duty to warn the family and to impress the idea strongly that while the acute symptoms appear mild the complications which are so apt to follow may be of a most serious character and for this reason it is necessary to watch the patient for a longer period than for any other disease; that he may be on the alert and ready to put forth his best efforts to antagonize the threatened complications at the first sign of the onslaught.

For like the deadly serpent that pauses for a moment before making its fatal spring—so may the acute symptoms of this disease subside, leading the untrained mother or nurse to believe that the worst is over and that the physician should cease his visits, but like the serpent the dreaded streptococcus may have paused for a brief period to multiply his army and to arrange them in battle array so as to strike a fatal blow all along the line at one and the same time, with a commendable heroism and fox-like stealthiness that would do honor to a Cronje or Roberts.

It is for this reason then that the physician should not be turned aside from his purpose of guarding his little patient over this dangerous period without strongly protesting and thoroughly explaining the danger of the complications even though he may be urged to cease his attentions by the mercenary parents, for if left to the nurse

to make the discovery of the attack the enemy will be too strongly entrenched to be driven out until the health and future usefulness of the patient has been undermined and destroyed.

An early diagnosis of scarlet fever is very essential for the reasons already given. While the skin eruption may be so slight or may have disappeared before we are called as to assist us but little in the diagnosis, the intense strawberry redness of the fauces, and tongue, so characteristic, with the hot dry skin should at once put us on our guard and help to make an early diagnosis.

A great deal of controversy and warm discussion has been indulged in both in literature and at the bedside in former years as to whether the exudate found in throat was due to diphtheria or belonged distinctly to the disease known as scarlet fever or both combined.

The bacteriologist in recent years has been able to settle many disputes and produce good feeling and harmony among physicians where enmity and contempt formerly existed, for which they deserve the thanks of the profession.

Klebs as you all know has the honor of being the first to partially solve the problem of diagnosis referred to, in the year 1875, and Loeffler confirmed the same by more careful investigation in 1884, by the discovery of a micro-organism or bacillus known as the Klebs-Loeffler bacillus and demonstrated by them to belong to the membrane found in true diphtheria.

While it is true that there are several micro-organisms which closely resemble the Klebs-Loeffler bacillus, the conditions under which they are found—often in the subject of perfect health—and the careful work of the bacteriologist renders the distinction comparatively easy.

Search for the specific germ of scarlet fever thus far has been fruitless.

It has been satisfactorily demonstrated however, that the specific germs known as streptococci are the cause of the pseudo-membrane exudate found in the throat of scarlet fever patients.

It is also just as truly an established fact that the streptococcus is the agent producing the complications following scarlet fever—called otitis, adenitis, nephritis, pneumonia and joint lesions.

The streptococci are almost invariably found in the throats of scarlet fever patients and when found in abundance with the bacillus of diphtheria—as they frequently are—suppurative processes are almost sure to follow. While without their presence we may have a very severe case of diphtheria without suppuration following. Thus we think it safe to attribute the terrible suppurative complications, which are so apt to follow scarlet fever, to the specific germ known as streptococcus.

We always expect to find an acute catarrhal condition of the throat in scarlet fever, but the case may be severe without any membranous exudate, usually when the exudate appears early in the disease it is pseudo-diphtheria, and may be a mild type, but when the pseudo-membrane appears late in the disease, we are apt to find the Klebs-Loeffler bacillus, then do we have all the characteristics of true diphtheria.

The bacillus associated with the streptococci and perhaps the staphylococcus not only aggravate the throat symptoms but large numbers of the cocci are taken up by the blood and through the agency of the toxins which they produce, we conclude that they are the cause of the septicemia and complications.

One of the most serious complications of scarlet fever is the extension of the inflammation from the throat along the eustachian tubes until the middle ear is involved resulting in otitis.

Acute and intense pain in the ear is soon followed by suppuration which may continue for life, making the patient a burden to himself and a very unpleasant companion for his associates. Necrosis may take place, and if the discharge becomes chronic total deafness is liable to occur.

Our state asylums contain thousands of children today deprived of their hearing by this disease.

Another complication which may occur and which is also the result of the invasion of the streptococci, is adenitis and cellulitis. The lymphatic glands become enlarged and the surrounding tissues greatly inflamed and edematous.

The streptococci are found both in the glands and in the surrounding tissues and are no doubt the cause of extensive suppuration, sloughing, and gangrene which frequently occurs in severe cases.

Joint lesions may be a complication simulating rheumatism but is usually a synovitis and is not of a severe type, suppuration rarely occurs.

The complication to be dreaded most next to otitis, is nephritis. While there may be some disturbance of the kidneys early in the disease especially in the septic type when albumen may be found in the urine, the severe form of nephritis does not usually occur until about the third or fourth week after the onset of the disease.

An accurate prognosis can not be made as to the severity of the nephritis. A mild case of scarlet fever may leave behind a long, tedious case of nephritis, again it may be very slight even after a severe attack, the disease apparently having spent its fury on other organs of the body.

Puffing of the eyelids are perhaps the first outward symptom followed by dropsical effusion in other portions of the body. The urine becomes scanty and high colored and may be entirely suppressed. Albumen, casts and blood cells can be found in abundance in the urine. This complication may continue until chronic Brights disease is established and then sooner or later death claims the patient.

Pneumonia, bronchitis, endocarditis and pericarditis, may also complicate this disease, but are not likely to be severe, except permanent lesions of the heart may occur in conjunction with nephritis, and hence we will not dwell on a description of these complications.

Before closing I desire to report a case which came under my care recently, the most distressing that I have ever witnessed. On January 20, last, I was called to a fam-

ily in which were four or five children, some visitors, and I found them all in a convalescent condition from a mild attack of scarlet fever, except one little girl about five years of age. She was an adopted child whose father had died with consumption. She had been sick four or five days, temperature ranging from 102 to 103. Tonsils red and swollen without any exudate, tongue red and not coated, faint redness of the skin, eruption nearly gone.

After about six days treatment the child appeared so much improved that the family thought it not necessary for me to call. After an interval of ten days I was requested to see her again. She now complained of severe ear-ache and sore throat.

Tonsils enlarged and angry but without any exudate. From this time on the inflammation extended rapidly until all membranes within the head appeared to be involved. Suppuration from the ears, nose and throat in such quantities as I never witnessed before, and with such an odor that it was next to impossible to remain in the room with the little sufferer.

She would sink away into a comatose condition with heavy stertorous breathing, until the nurse would arouse her and by spraying the throat with per-oxide of hydrogen and steaming her with tr. benzoin compound and ol. eucalyptus and encouraging her to blow the discharge from the nose until she could breathe a little easier for a short time only.

She would then relapse into the same condition only to be aroused by the nurse to prevent breathing ceasing entirely.

This condition continued for three weeks not being quite as severe after the first week, during which time for five days she did not swallow a drop of water. Why she did not die during this time the great ruler of life only knows. After this five days of fasting she again could swallow milk very slowly. The discharge from the nose and throat gradually ceased after five weeks.

Deep ulcers of the throat which were extensive during this period also gradually healed, but the suppuration from the ears

and through the mastoid bone back of the left ear, continued to discharge until on March 7, the discharge suddenly ceased.

She complained of pain in her head. The following night she became paralyzed on the right side, could not use the right hand or limb, was unconscious, pupils dilated, could not swallow. Hot applications on the left side of the head appeared to assist in reestablishing the suppuration which was again very profuse. After which the paralysis gradually disappeared and she could swallow as well as usual, but remained in a rather stupid condition.

Analysis of the urine showed albumen present in considerable quantities during the last two or three weeks.

The suppuration from the ears and through the mastoid bone on left side continued up to the time of her death, which occurred on April 27, after an illness of over three months.

During the past twenty years in treating this class of cases, I have noticed that children who inherit weak constitutions are much more liable to suffer from suppurative processes than are the robust, especially those who have inherited syphilis, tuberculosis and children from aged fathers. In regard to the last named class I have never read any statements on the subject and hence am somewhat curious to know the experience of others with this class.

In closing I wish to say that I sincerely hope the day is not far distant when the bacteriologist can place in our hands a specific antidote that will prevent these complications that are so destructive to the tissues, and that have wrecked so many lives on the coral reefs produced by our deadly enemy, the streptococcus.

THE ACTION OF THE KIDNEYS IN HEALTH AND DISEASE.*

BY J. PALMER MATTHEWS, A. M., M. D., CARLINVILLE.

The Cellular pathology of Virchow attempted to solve the mysteries of the animal economy in its building up and tearing

*Read at the Fiftieth Annual Meeting of the Illinois State Medical Society, Springfield, May 16, 1900.

down process by attributing to the white blood corpuscle or leukocyte all the properties of a separate living existence, while the animal with its variety of tissues is but a mass of differentiated cell bodies and its pathological states are due to the proliferation or degeneration of the component cells.

It did not recognize derangements of the circulation or alterations in the composition of the blood to be pathological factors. When Koch, of Berlin, advanced his theory of the action of vegetable micro-organisms on blood and tissues of living animals, thereby explaining diseased conditions that were before in obscurity, a wide field was opened up for both the bacteriologist and chemist.

The microscopist by the aid of suitable staining fluids could demonstrate the bacilli of Anthrax, Tuberculosis, Typhoid Fever, Cholera and the cocci of Pus, Gonorrhoea, Pneumonia, Malaria and more of the less common diseases found as parasites or fungi in animal tissue.

Koch's four rules were followed out in each case, viz.:

1. The microorganism was demonstrated in each case of the specific disease.
2. The germ thus found was isolated on suitable culture media from all other microorganisms.
3. The isolated germ on being inoculated into healthy animals produced the specific disease.
4. In the freshly inoculated animals could be found typical germs of the disease.

Now the first two propositions could be readily demonstrated but the third and fourth is more difficult for lack of willing subjects, especially in the human family. To obviate this difficulty, Victor C. Vaughn, of Ann Arbor, declared that in the blood and tissue of infected animals could be found chemical products which on being inoculated into healthy animals would produce the toxic symptoms of the disease.

Now this was the chemists opportunity and in his researches in the tissues and ex-

creta of diseased animals many toxins have been separated which on being put to the test of Koch's rules, viz.: On inoculation into healthy animals produce specific symptoms of disease.

These ptomain substances have the same reaction to an acid that any of the salts in chemistry have and after being taken into solution in water, alcohol or ether as the case may be, can be evaporated to crystal state.

These, then, are the specific causes of contagious and infectious diseases, viz.:

The products of vegetable microorganisms in their action on animal tissue, which have the chemic reaction of alkaline bases.

The urine of animals suffering with many of the specific diseases on being injected into healthy animals will produce symptoms pathognomonic of the disease.

Now this brings us to a group of substances found in urine of beings suffering from other than specific diseases due to microorganisms.

These pathological substances have the same chemic reaction that alkaline bases have to acids and can be separated from urine by evaporation in a crystalline form.

These animal alkaloids are not due to action of microorganisms but are the product of retrograde metamorphosis. The nuclein albumen of the tissues in the process of exudation and elimination from the body as urine and ammonia and carbonic acid gas forms poisonous substances called leukomains, from greek meaning white of an egg. These basic substances are divided into the uric acid and creatin, group of poisons and when found in the urine in excess are pathognomonic of deficient exudation and faulty elimination of albumenous products.

They are found to be synthetic with coffee and tea and nearly identical in action on the animal economy. When taken into the circulation in excess their irritant action on the sympathetic system causes contraction of the capillary system of blood vessels driving blood to the internal organs leaving the extremities and surface of the body subnormal in temperature and if the

condition is prolonged depriving these portions of the body of proper warmth and nourishment. In fact the presence of these excretory products in the blood disturbs the normal supply of blood to all the organs of the body through this influence on the vascular systems.

Migraine with its slow pulse and throbbing headache, and the poorly nourished cold clammy skin are but the first signs of faulty elimination.

The kidneys, liver and skin, the proper eliminative organs have their blood supply diminished by the contracted arterioles so they fail to leave the body of the auto-intoxication and a chronic condition of malnutrition ensues. The blood supply to the digestive system suffering in the same way, produces an indigestion which reacts to further distress the so called bilious patient.

When these products fail to be eliminated and are thrown into the tissues and joints they become local irritants and cause gout and rheumatism. If a tissue or muscle becomes irritated or inflamed its hyperacidity will precipitate uric acid locally and cause twinges of rheumatism or soreness of the parts that may develop into chronic inflammation.

What is the remedy for uric acidemia?

It is found that an acid condition of the blood will precipitate while an alkaline will take uric acid up into solution by reason of the normal phosphates, which while alkaline will unite with uric acid but when saturated to acid phosphate will no longer combine. Calomel when in acid blood will unite to form a soluble compound. The Salicylates will also go into solution with uric acid in an acid medium.

When we examine our specimen of urine and find it to be highly acid and specific gravity high from scanty water due to contracted arterioles of kidney with uric acid in excess. We must restrict all albumen or nitrogenous diet such as meat and eggs, etc.

Then if we have local deposits of uric acid in the tissues in the form of rheumatism of muscles and joints or gout of the intes-

tines due to acidity of the blood give an alkali till the urine turns litmus paper blue and alkaline phosphates take the place of urates and acid phosphates in the urine. Calomel and podophyllin should be given with the salicylates to take in solution the leukomaines and eliminate them through the stimulated emunctories: liver, kidneys and skin.

HYPERTROPHY OF THE PHARYNGEAL OR LUSCHKA'S TONSIL; ADENOID VEGETATIONS; ENLARGEMENT OF THE THIRD TONSIL.*

BY EDWARD T. DICKERMAN, M. D., CHICAGO.

The pathological condition designated by these various terms, plays such an important role as a disease per se, and as an etiological factor in diseases of the nose, throat and ear, that an analysis of the cases to be reported may prove to be of some value.

Physiologically, we find in children a collection of lymphoid tissue in the back part of the pharyngeal vault. This mass is slightly elevated, and extends from the median line laterally to the fossa of Rosenmueller. Its surface is grooved by several deep vertical depressions, producing a decided lobulated appearance. In structure it is composed of lymphoid tissue, in a reticulated framework of loose fibro-connective tissue.

In the substance of this body are situated numerous lymph nodules or follicular glands. The surface is covered with columnar epithelium.

Mucous glands, whose ducts open on the surface, are buried in its substance. The simple hypertrophy of this mass constitutes the subject of this paper. Hypertrophy of Luschka's tonsil, as is generally the case with lymphatic or glandular enlargements, is a condition which belongs more particularly to early life, and occurs much more frequently than is generally supposed.

*Read at the Fiftieth Annual Meeting of the Illinois State Medical Society, Springfield, May 16, 1900.

The young being more prone to diseases of the lymphatic structures, and as this gland is the first to come in contact with the germ-laden inspired air, and to its frequent changes in temperature, inflammatory results are more likely to occur. If we have behind this an inherited tendency or lymphatic weakness, it is easy to conceive how repeated acute inflammatory attacks with the resulting cellular activity of the epithelial and lymphatic structures would result in hypertrophy.

The condition may be congenital, but more frequently develops later, and only when it becomes of sufficient size to produce symptoms is it recognized.

About the time of puberty there is a disposition to atrophy, although this may be only partial, and the thickening exist through life. Frequently the depressions or crypts persist, the infection of these pockets causing a distressing form of nasopharyngitis. Apparently this disease has little regard for sex, or social states, as it is found frequently among the rich, as well as the poor. The symptoms of this disease depend primarily upon the size of the growth.

Due to the obstruction, one of the most apparent as well as one of the most constant symptoms is mouth-breathing, which produces a number of marked changes, both in the face, and all along the inspiratory tract. The facial expression of a mouth-breather is most characteristic, the loss of the labio-nasal fold, the thickened and protruding upper lip, and receding and drooping chin, giving to the face a peculiar bland and stupid expression.

Due to the lack of circulating currents of air in the nose, we find it filled with mucus, which frequently becomes infected producing various inflammatory changes in the nose, and the neighboring accessory cavities. The inspired air not being properly warmed, moistened and filtered, we find the mouth, pharynx, and larynx dry and frequently covered with dried mucus, this condition of affairs predisposing to attacks of coughing, croup, laryngismus stridulus, asthma and bronchitis.

Frequently due to shallow breathing, the chest walls are narrowed, producing the so-called chicken-breast.

The dryness of the pharynx and the presence of mucopurulent secretions in the naso-pharynx cause a constant desire to swallow, and air taken into the stomach frequently causes gastric disorders of more or less intensity.

Due to the mechanical irritation of the growth or by pressure at the orifice of the Eustachian tube, the free ventilation of the ear is prevented; it also undoubtedly interferes with the venous circulation of the ear, and in these two ways may start up those insidious cases of catarrhal otitis media. When any acute inflammatory process exists in the naso-pharynx, it frequently causes a purulent otitis media.

Due to the shallow breathing, complete oxidation of the blood does not occur in the lungs, and anemia and other symptoms of malnutrition are present. Reflexly, cough, night terrors, and restlessness, nocturnal enuresis, and other reflex phenomena are frequently present. Associated with hypertrophy of the third tonsil, enlargement of the faucial tonsils is frequently found, and especially in those cases do we find a loss of the normal head resonance, and a characteristic nasal twang of the voice. In other cases stuttering and stammering are produced.

The diagnosis is made from the general clinical picture, and directly by means of the rhinoscopic mirror, or where this is not possible, by the introduction of the index finger into the naso-pharynx by way of the mouth, where the growth can be distinctly felt in the roof of the pharynx, lying behind the septum and above and between the posterior lips of the Eustachian orifices, and conveying to the finger the sensation of a lobulated, soft, non-resisting mass. The removal of this growth, especially in children, should only be done under a general anesthetic, as in this way the nervous shock of the operation is avoided, and the work done thoroughly. Personally, I prefer either ether or chloroform, in preference to the short anesthesia

of bromide of ethyl or nitrous oxide gas.

After anesthesia is complete, with the patient on the back, the head should be well over the end of the table, and dependent in this way all blood escapes through the nostrils.

A mouth-gag is now inserted and after thorough exploration of the growth with the finger, a pair of forceps, such as Gradle's or Schutz's, should be introduced, and as much of the growth as possible removed, care being taken not to injure the septum or Eustachian lips.

Then, by means of Gottstein's curette, or one of its modifications, the roof and posterior wall of the naso-pharynx should be thoroughly scraped. Now, to my mind, comes the most important step in the operation, the introduction of the finger, and by means of the nail carefully removing any small particles left, careful search should be made back and above the posterior lip of the Eustachian prominence. The child is now turned face downward until hemorrhage ceases. After-treatment should be delayed about ten hours, when a cold alkaline spray can be sprayed gently into the nose and throat. The child should be kept quiet for at least three days. Where no anesthetic is used, the parts can be sprayed with a four per cent eucaine solution; the child being tightly held in the lap of an assistant, the above technique can be carried out.

The following tabulated cases may be of some interest, and value, on account of the number and various conditions under which they were treated:

Total number of cases, 525; oldest, 43 years; youngest, 6 weeks.

Sex—male, 248; female, 277.

Mouth breathers.....430

Mouth breathers at night.... 74

Lymphatic tendency 411—78%

Aural complications.... 378—72%

Secondary hemorrhage 1

Alarming hemorrhage 0

Recurrence 2

Secondary operations where no anesthetic was used, 14 cases.

Anesthetics 304—58%

Chloroform..201

Ether..... 64

Bromide of ethyl.... 34

Nitrous oxide..... 5

Up to 5 years..... 47— 8%

5 to 10 years.....211—40%

10 to 15 years.....163—31%

15 to 20 years..... 49— 9%

20 to 30 years..... 33— 7%

30 to 40 years.. 19— 4%

Over 40..... 3— ½%

From the above table the following facts can be seen:

1. That cases are found at all ages, from the youngest—aged six weeks—to the oldest—43 years of age,—but that the disease is found most frequently in childhood. Forty per cent were found in children between the ages of five and ten years, and thirty-one per cent between the ages of ten and fifteen.

2. That sex plays little part, although there is slight excess to the females' credit.

3. Mouth-breathers numbered 431, mouth-breathers at night only 74, while 21 breathed freely through the nose.

4. In 78 per cent a lymphatic tendency was expressed by the enlargement of the faucial tonsils to a pathological size.

5. A very important fact to be noticed is the large per centage (72 per cent.) of cases with, or with histories of, aural complications.

6. Hemorrhage was never alarming, and but in one case was there a secondary hemorrhage.

7. Recurrence occurred in but two cases, where the operation was done under an anesthetic, and a second operation was necessary in fourteen cases where no anesthetic was used, but the results were not always as satisfactory in cases not anesthetized.

8. Anesthetics were used in 304 cases in the following manner: Chloroform, 201 times; ether, 64; bromide of ethyl, 34; nitrous oxide, 5.

Personally, I prefer chloroform properly given, although in some cases ether is probably better, notwithstanding the nausea that generally results.

THE IMBIBITION OF WATER IN RELATION TO SOME FORMS OF DISEASE.*

BY W. T. MOFFETT, M. D., BLUE MOUND.

Water is no doubt one of the oldest therapeutic agents.

Hippocrates, Asclepiades and Celsus of the ancients knew of the virtues of hydrotherapeusis and prescribed the use of water. Ancient Chinese history also records its use.

Water has perhaps been used in every conceivable manner and for all sorts of disease. It has borne the burden of a separate school or sect in medicine. It has been used internally and externally, hot and cold, to puke and to purge, to stimulate the kidneys and to open the emunctories of the skin; it has been denied to fever patients as though it were so much poison and perhaps has been given in excess in obesity and some other disorders.

The subject of hydrotherapeutics is too large for one brief paper. I only wish therefore to mention a few points in connection with the drinking of water and its relation to some conditions of disease.

I will not invade the field of the external use of water although I am free to confess that it is a much neglected one.

Nor will I discuss rectal enemata although I have known hours and days to be lost in the battle with disease by not resorting boldly to this simple and useful procedure.

I do not hope to introduce any new facts and shall perhaps not even present old facts in a new or original manner, but I shall feel repaid for my labor in writing this paper if I am able to impress some of you with the importance of some facts which are too often overlooked because they are simple.

Before taking up conditions of disease, I wish to refer to some facts which you will all remember having learned in your studies of physiology, and I refer you to the

works upon physiology for more complete details.

The body as a whole is composed of between two-thirds and three-fourths water.¹ The fluids of the body including the perspiration and urine are composed on the average of about 93% water. The normal feces are composed of about 73% water. The daily excretion of urine should average about 52 ounces. The daily amount of perspiration excreted should be about 24 to 32 ounces. The exhalations of the lungs should contain from 9 to 10 ounces of water daily.

The daily ingestion of water should be from four to five pounds including that which is in the food.

Fowler² has well said that, "the kidneys act as regulators of the water supply of the blood; they take from it any excess, and when there is an insufficiency, they demand only enough to dissolve the solid constituents of the urine and to facilitate their discharge from the body."

Roberts³ says, "The flow of urine is essentially regulated by the quantity of fluid drank; controlled, however, in a most important degree by the pulmonary and cutaneous exhalation, and by the call of the system for water at the time. When the blood and tissues contain their full complement of water, any further potation results in immediate diuresis, whereby the superabundance is carried off. But when the organs and tissues of the body are craving for more water, a large quantity may be drunk without causing diuresis. The kidneys eliminate water in strict accordance with these conditions—it being an essential and important part of their function to regulate the aqueousness of the blood."

I am firmly convinced that it is too often the fact that this regulating function of the kidneys is rendered void by the continued failure to imbibe sufficient water to satisfy the needs of the tissues and fluids of the body, and I have no doubt that many cases of renal inadequacy and auto-intoxication with all the symptoms which may depend upon these conditions are largely due to this deficient use of this cheapest,

*Read at the Fiftieth Annual Meeting of the Illinois State Medical Society, Springfield, May 16, 1900.

purest and best diuretic, laxative and tonic—cold water.

The functions of the tissues and fluids of the body are carried on only in the presence of and by the aid of water; digestion, assimilation, tissue metamorphosis and elimination are all dependent on a sufficient supply of water and any amount of water less than normal impairs these functions to that extent.

Think how many of our disease conditions are dependent on indigestion, malassimilation, deficient tissue metamorphosis and inadequate elimination! How many conditions there are which require an increase in elimination!

Without the free imbibition of water there can be no free elimination. With the free use of water elimination will often take care of itself.

I hope no one will misunderstand my words or think that I decry the use of medicinal eliminants.

Drinking cold water increases arterial tension, reduces bodily temperature, increases peristalsis and biliary secretion and aids digestion. Warm water is an old and very reliable emetic and hot water sipped an hour before meals is highly recommended for gastric catarrh.

Debove has his typhoid fever patients imbibe six ounces of cold water every two hours in preference to any routine medication.

There is quite a large class of chronic troubles such as migraine, neuralgias, muscular rheumatism, epilepsy, insanity, hysteria, chlorosis, asthma, and gynecologic diseases, which is associated with constipation, renal insufficiency and inactive skin. On inquiry you will find that a large percentage of these cases drink water sparingly, many not at all. They make out to drink a cup of tea or coffee three times a day. They are perhaps drinking twenty to twenty-five ounces of liquid a day where they should drink sixty to eighty.

Every organ and tissue in the body is struggling for its share of water and retaining water loaded with waste products which should be eliminated. All the tis-

tures suffer, toxins accumulate and the whole organism is poisoned, the patient is reeking in his own poisons, he has auto-intoxication.

A moments thought will remind any physician that elimination in one or all of its channels is one of the most important and frequent procedures in the treatment of the sick, indeed in many cases it is all that is required.

Bouchard⁴ states as a result of a very careful investigation "that the twenty-four hours normal urine contains poisons sufficient to kill the individual if they had not been eliminated," and we can well believe this; for how swiftly do our patients die when for any reason they have complete suppression of urine!

When by misfortune the only kidney or the only active one has been surgically removed death supervenes rapidly.

Roberts³ states that, "nonobstructive suppression results fatally in a few hours or at most in a day or two," but he did not recognize the role that poisons played in this event. He placed the blame on accompanying shock.

The failure of the kidneys and bowels to eliminate the proper amount of waste products is a fruitful source of auto-intoxication.

No doubt many cases of convulsions in children are due to this cause.

Although careful analysis of the urine in a large number of skin diseases as reported by Bulkley⁵ fails to show any very conclusive connection between urinary insufficiency and skin diseases, there is reason to believe that there is some such causative relationship between renal insufficiency and cutaneous disorders.

I have known an obstinate case of eczema of ten years duration to yield rapidly to free eliminative treatment in a case accompanied by chronic constipation and known renal inadequacy who drank sparingly of liquids and complained as most of these cases do of a distaste for water.

I have also cured a case of obstinate constipation of long standing without any medical treatment, merely insisting on the

patient drinking from four to five pints of water daily.

I wish to emphasize the importance of the physician inquiring into the patients habits as to drinking water and to insist that not less than the physiologic amount be imbibed daily; while in the cases of auto-intoxication when extra and rapid elimination is desired an excess of water may be advantageously used to aid in eliminating toxins the more rapidly.

Water may be imbibed until the kidneys act freely, the stools are soft and the skin moist.

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IF THE CAUSE IS REMOVED THE CURE WILL FOLLOW.*

BY W. J. CHENOWETH, M. D., DECATUR.

I have chosen this axiom with the intention of applying it to the treatment of tuberculosis of the lungs, a disease caused by the tubercle bacillus, a specific germ. If there is no mistake as to the cause and the axiom is applicable, the disease should be arrested by removing the germ. That contact with the lung usually causes the disease will not be disputed. Nor will it be denied that the germ sometimes comes in contact with the lung without developing the disease. If the cause of this can be discovered, it may point to treatment which will enable us to arrest, and to cure the disease. Discovery of the cause, or the causes, which prevent development, must depend on knowledge of the bacillus, and of the cells of the tissue, as they stand in the relation of aggressor and defendant. The germ cannot cause the disease unless the tissue of the lung is suitable food for its maintenance and increase, and the cells of the tissue are incapable of resisting the attack.

The history of the discovery of the tubercle bacillus is one of the most interesting in the annals of medicine. Pasteur had demonstrated that attenuated anthrax germs, introduced into the body of an animal, previously injected with virulent germs, would prevent the development of the disease. This induced many students to search for the cause of tuberculosis. And so assured were physicians generally, that the cause would be found to be a germ, that when Koch announced that he had discovered it, and soon afterwards that he had found a cure, credence was given before demonstration was asked. No occasion has ever given rise to greater rejoicing. The discovery subsequently, that tuberculin was not a germicide, and afterwards that the new tuberculin, intended to supersede the old, had not succeeded better than the first, relegated both of them to diagnosis of supposed cases of the disease.

The biological character of the germ has been very carefully studied, while generally classed with bacteria, Hueppe considers it the parasitic form of a pleomorphic mould, the other forms only making their appearance in its saphrophytic existence. It is a single celled vegetable germ whose natural condition for nutrition and increase is best met in a certain quality of living animal tissue. Being non-motile it is limited in acquirement of food to contiguous tissue, from which it obtains substance of absorption of soluble substances. If the food is not suitable, or the temperature of the tissue above or below certain degrees, it cannot continue to exist. Outside of the body it may become attenuated by exposure to sunshine for an indefinite time, as also to other conditions not favorable to its life. If it reaches the lung tissue under such circumstances it is too attenuated to germinate, and must perish even though the soil may be suitable. Park says, "We have a culture of the tubercle bacilli which after having been grown for three years in the body of guinea pigs will no longer develop on dead organic matter. While a bacillus which

*Read at the Fiftieth Annual Meeting of the Illinois State Medical Society, Springfield, May 16, 1900.

was obtained from the same stock, but growth on bouillon for three years, will no longer develop in the animal body." This explains why we escape from the disease after exposure, under circumstances apparently favoring its production. A tree planted in ground not adapted to its nutritive requirements, if it lives, will be stunted in size and sterile, and if transferred to suitable soil will require cultivation to bring it up to a healthy and productive condition. Growth in the animal kingdom physical and mental is recognized as depending on the kind of food ingested. When Cassius asks, "On what meat does this Caesar feed that he is grown so great?" we look upon it as hyperbole merely. National peculiarities are colored, if not formed, by the food consumed. This is exemplified in the character and position occupied by beef eating and rice consuming nations.

The conclusion is therefore legitimate, that the effect of contact of germ and tissue, will depend on both bacillus and tissue. Attenuated germs on a lung fitted for their growth and increase, may find feeble support, if they escape destruction by the cells of the part. But their capacity to do harm is limited. Even virulent bacilli may fail to establish a colony, because of the want of adaptability of soil to culture. There must be adaptation or starvation will result. It is a familiar observation that animals susceptible to the disease, are not equally liable. This is true of individuals and of classes. A perfectly healthy man cannot be said to be susceptible to an attack, while the sick, the weak, and those abandoned to vicious habits *invite* the disease. The Italians have a proverb which can be parodied to apply to the condition, "The Devil seeks every man, but the lazy man seeks the Devil." Under ordinary circumstances, if the bacillus is introduced into a healthy lung the disease will not be developed, but may result from persistent efforts. Or, failing to produce the disease, may cause an abscess. The resistance of the cells may be overcome by exposure to cold or by fatigue. Change of habits may

cause it, if accompanied with increase or decrease of exercise. Wild animals accustomed to seek their food, by pursuit in the open air, are not susceptible, but are if confined in close cages. In some infectious diseases immunity is secured by vaccination with the germs causing them, but no such protection is possible in tuberculosis because of the character of the germ (a parasite) and of the lesions produced by its presence. It might be possible if no other germs were invited by the lesions incident to the attacks. But as no provision yet known can prevent the presence of virulent organisms causing inflammation, septicemia, or other destructive conditions, invited by the lesion induced by the tubercle bacillus, it is utterly impracticable.

Permanent conditions which *invite* attacks, may be inferred from temporary conditions which *permit* them. As the usually non-resisting apex, the tendency of badly nourished lungs to decomposition (manifested by offensive exhalations, one of the characteristic evidences of starvation). And also by the facultative character of the bacillus, which outside of the body, is easily induced, after being first cultivated on blood serum, itself in a condition favoring decomposition, to live and thrive on dead animal matter. While general debility is not conclusive of susceptibility, it certainly indicates it, the supposition and expectation, being that if the body is weak the lung is susceptible. Whether we believe in the unity of the organism, or with Virchow, that it is not an individual, but a social organism, containing cells which are the factors of life, composed of organic chemical substances, not themselves alive, there is no reason to infer that one part can suffer while another is entirely exempt. This is shown by the dependence of every tissue in the body, on the blood current which is supplied with food suited to the demands of each and every part. Certainly tuberculosis of the lungs cannot be regarded as a limited local disease, as every impediment placed in the way of oxygenation of the blood, or which can interfere with elimin-

ation of Carbonic Acid, necessarily compromises the functional activity of every other organ, all of them requiring a supply of the one, and discharge of the other. When it was first ascertained that the tubercle bacillus was the cause of tuberculosis, remedies purporting to be bacillicides, sprang into existence so rapidly, and with such promises of success, that it seems almost incredible that so many of them have been forgotten, and that so few of those yet remembered command respectful attention. Those which at the time were awarded greatest confidence, were extracts of the bacilli, made by men prominent as bacteriologists, and above suspicion of commercialism. And although probably an outgrowth of the homeopathic dogma, "Like cures like," which was ascendent at the time, the partizan strife prevalent had but little effect, to prevent their acceptance as curatives. While no longer holding the position then possessed, they still command consideration, and have incidentally unearthed much practical knowledge. The warfare of the bacilli and of the cells of the tissue, is but one phase of the battle for food universally prevailing, and which finally ends in the survival of the fittest. When the cells of the tissue are not equal to the demands; one of the most marvelous sights recorded in the battles for life, occurs, the white corpuscles (the reserved corps) rush into the conflict and conquer or are conquered as the opposing forces are in the minority or majority, in numbers or as the germs are attenuated or virulent in character. The tissues while in health are suitable for its natural occupants, but when depressed by sickness become suitable food for their opponents. The bacillus will starve on the healthy tissue, the cell will perish on the sick. If at the beginning of an attack, but a limited part of the tissue is feeble, from want of nutriment, or other cause, the invading germs may fail of permanent occupancy, because the cells in the adjoining tissue may be able to regenerate healthy tissue incompatible with their existence. If on the contrary, as often happens, the tissue cells

partake of the weakness incident to the starving condition of the entire body, the white corpuscles being in like condition, the bacilli can easily acquire control, and with the toxin generated, destroy the contiguous tissue and distribute the poison throughout the body by means of the lymphatic and vascular systems, thus further decreasing the feebleness of the cells while stimulating them to continue the conflict.

The progress of the germ may be slow, at first, but suitable soil and inefficient resistance of the tissue cells, soon permit an enormous increase in numbers. Persons having an acute attack of tuberculosis of the lungs live from six weeks to six months, and before death ends the struggle will expectorate, in many instances, germs in number almost beyond computation. Nutall has estimated that there will be from five hundred millions, to three billions, cast off in twenty-four hours. Others have made larger estimates. If the ill-nourished cells defending the tissue, could not prevent the germs from seizing it when few in numbers and the area occupied limited, it cannot reasonably be expected that after they have appropriated a larger area and increased in numbers, the impoverished cells can be stimulated by tuberculin, or by any other toxin, to conquer them. We might as well look for an engine to be run by heating an empty boiler. *Credat Judæes Apella non ego.* But admitting that the bacilli are destroyed, we have not reached a solution of the cure. The lesions caused by the toxins must be repaired, and the condition which existed before the attack restored. This can only be done by those cells whose duty it is to repair the daily waste resulting from metabolism, and as good work can only be done by healthy cells, no amount of stimulation can be substituted with hope of success. The repair of lost tissue is not easily accomplished in healthy persons, and if greater repairs than slight lesions near the surface are demanded, the connective tissue is disproportionately increased and the part will not be as

completely developed as before. It is not possible therefore for badly nourished cells to make repairs on feeble tissue which are difficult of accomplishment for healthy cells on healthy tissue.

When Bastian, at a meeting of the Pathological Society of London, in 1875, demonstrated that bacilli could be found in a flask containing an extract of putrid flesh which had been hermetically sealed during ebullition, he failed to prove that their presence was due to spontaneous generation. But the experiment satisfactorily established that the putrid matter was as responsible for the presence of the bacilli, as were the germs found by Tyndall and others, to have generated them. The dead organic matter was a *sine qua non* to their existence, hence a twin factor. And it holds good in all infective diseases, that food which is necessary to the life and propagation of the germ which causes it, is equally, with the bacillus, a factor to the disease. And immunity can be established if we can ascertain what will render the substance on which it feeds innutritious.

If Koch had succeeded in destroying the bacillus with an extract made from dead germs, the toxin would have been tolerated by the cells but that the existing lesions could be removed, by the germs because of such stimulation, would be as improbable as that alcohol could restore lost function to a debauchee. If in a lung there are but few foci of limited extent, fit food for the germ, while all other parts are healthy, cure will result from the unaided efforts of the cells to restore the loss. We might expect the death of the bacilli from starvation, and that restoration would readily follow. Doubtless many such cases recover, without the knowledge of patient or doctor. As determined by *post mortem examination*, at least one-third of all persons who die had recovered from former attacks of tuberculosis of the lungs, which was shown by puckerings, cretaceous concretions, and cicatrices. And there must have been many recoveries where the lesions were so completely removed as not to be in evidence. Dr. Whalen, in the Medical

Record of recent date, says that eleven per cent of all deaths which have occurred in Chicago in the past ten years, were reported to have been tuberculosis of the lungs. Assuming that ten per cent is a fair average of deaths from the disease, in large cities, not less than one-half of the entire population have had the disease at some period of their lives.

As we have no data on which to found the cause of the recoveries, we must give credit to the vis medicatrix, immunity, or a healthy condition of the cells of the lungs, all of which mean about the same thing, *ability to resist disease*. We are justified and encouraged, to trust to hygienic measures, so fashionable now, as, according to present knowledge, best adapted to meet the requirements. If there should be curtailment or addition to treatment, the common sense of the profession might suggest more respect to rule of thumb. Practical results are certainly as reliable as theoretical conceptions.

SUMMARY.

Tuberculosis of the lungs results from contact of a specific germ with a lung especially adapted to its nutrition. An attenuated germ cannot cause it. A healthy lung will not permit it. Hence it is irrational to expect to cure the disease by removing the germ. It might be prevented if we had knowledge of its presence before it caused the disease, but this is not yet possible. After a lesion has been effected, reliance for a cure is on the cells which regenerate the tissues, caused by the ordinary wear and tear of life's processes. That they can be made to accomplish this by artificial stimulation is not credible, when we reflect that it was their want of ability to destroy the germs, which permitted the destruction incident to their increase. There cannot be any better known means of cure than to establish a healthy condition by suitable hygienic surroundings and proper food.

DISCUSSION.

DR. ADOLPH GEHRMANN, Chicago: The doctor has combined in a very concise and most interesting manner some of the most in

interesting facts in medicine today. The most interesting problem we have to contend with at the present time is, why do we become infected? The general fact of immunity, natural and acquired, is one that is receiving a great deal of attention. Reduction of natural immunity has been recognized as being due to changes in the constituents of the blood, to alterations or changes in the tissues, temperature, and sometimes by the action of specific toxins of diseases other than the one with which the individual eventually becomes infected. These alterations in the reduction of the immunity are the reasons why we become infected. The retention of excrementitious matter is a probable cause of the reason why an individual becomes infected, and one that will be eventually recognized by all.

With reference to tuberculosis, it is an interesting fact that pulmonary tuberculosis is most common in elderly individuals, but I do not believe that all of the cases are direct infections of the lungs. I am inclined to think that in many cases of pulmonary tuberculosis the bacilli have located in the lung after having circulated in the blood. In connection with the study of milk, and in experiments upon guinea pigs in relation to tuberculosis, we find that there are a considerable number of cases of tuberculosis of the lungs in guinea pigs, which shows that there is not necessarily infection directly of the lung.

I wish to say further, that in bringing about immunity, we must all recognize, particularly those who have studied the subject, that we cannot produce a mild attack of the disease, if we have the disease already, in the hope of producing immunity. Take an individual before any of the disease is present, and who becomes infected with tuberculosis, then you can take the toxins of the disease and produce a mild attack of the disease similar to vaccination or the production of antitoxin, and in this way you can begin the use of toxins or vaccination as if the disease has developed, with the hope of producing a curative effect.

FARTHER CONSIDERATION OF STATE MEDICINE AND SANITATION.*

BY A. C. CORR, M. D., CARLINVILLE.

The question of State Medicine and Sanitation has arisen out of our social relations and conditions. Formerly, when our country was sparsely settled by the pioneer and there were only small villages at a great distance from each other and a wide expanse of unoccupied territory intervening between neighbor and town, the influence

of crowd-poison and the development of microbic life were at a minimum.

The revolution wrought by immigration and the more natural sources of increase of population and the luxuries of discovery and invention are massing the people more closely together as neighbors in the country districts, and the multiplication in number and the size of towns and cities, until the conditions that generate and develop microbic life are becoming too powerful for the health and well-being of the people to withstand.

We are now recognizing a large class of diseases that are microbic in origin that destroy the life and health of the people, and we recognize the fact that the effluvium from the people in its thousand fold abundance from animal life, in the way of offal and sewerage and its polluting influence on public and private water supply, and the air that we must use and breathe are the prolific source of the microbic life that is such a causative factor in disease and death. So much so that the germ laden air *that we must breathe* is sometimes like the Arabian Simoom that blights and withers everything it touches.

It is just this condition in our social development and surroundings that obliges us to consider the questions of State Medicine and Sanitation. In former times, during our territorial state and early statehood, with thin population and no towns or cities, no commerce, no wealth, but open oxygenated air, clean water and a glorious, invigorating sunshine; the pioneer emigrant in settling here built his house of the crudest materials with imperfect tools, and his ability to make it so that the matter of ventilation was at all to be considered was limited. Conditions other than a mere roof to shelter and a place to build a fire and to cook a very frugal—but oftentimes a very healthful meal—was not thought of.

The inhabitants of this region, then the “wild and woolly West,” living in these new and primitive abodes, did a little agriculture work and stockraising and entered into crude manufacturing with all outdoor for

*Read at the Fiftieth Annual Meeting of the Illinois State Medical Society, Springfield, May 15, 1900.

a workshop, the wind untrammelled and the sunlight undimmed.

The wide acres surrounding such a habitation as this with abundant rainfall, with its dissolving and detergent influence, the oxydizing winds and chemic rays of the effulgent sun, would soon reduce to a minimum the polluting influence of its inhabitants. Here the pathogenic germs had no favorable soil for multiplication and development.

The plasmodium malarie was the king of the realm, known only in theory and speculation; but his power to shake the pioneer was equaled only by the terriers to shake the rat. Soon this primitive condition changed. The pioneersman became thrifty and built him a better house, and stock, consisting of hogs, horses, cattle, pigs and chickens, began to accumulate around him. His former neighbors and friends began to visit him; his thrift attracted them, they came and squatted beside him. Soon the fame of this "Prairie State," became known throughout the land. The State was so rapidly settled that the condition requiring only drainage of the natural rainfall, now requires expert engineering to prevent us from being annihilated by accumulated animal filth from poultry yards, dairy, barnyard, town, city, and even our charitable and penal institutions, set up by and in the interest of humanity, law and order. Manufactures and architecture followed in the train.

The crude material of which buildings were formerly constructed has given place to that from which almost air-tight dwellings are built. The open fireplaces have from necessity given place to very much better heaters, but much less perfectly ventilating apparatus, and our elegantly built and well-heated edifices are in a sense hotbeds of germ life, and pathogenic germs of disease are cultivated; bred and impregnated, in our homes and our wells and cisterns, in our cellars and basements, ready to attack both man and child; on the farm or in the city, in the mansion or in the tenement. The soil is polluted, the streams, once pure and healthful, are now public

carriers of accumulated sewerage. To protect from this source of disease and distress is beyond the power and means of the individual or those of a circumscribed community.

Hence, under our form of government the powers of the State are invoked. *This is "State Medicine."* State Medicine has for its province a determination of whether or not the State in its corporate and police powers has a right to enforce among its citizens prophylaxis. How far it shall intervene in the conduct of the citizen to make him healthy himself and not allow his personal convenience to jeopardize the health of others. How far it shall control his conduct, when diseased, to prevent the contamination of others with his communicable disease, and how far it shall compel the individual to conduct his affairs so his refuse garbage and sewerage shall not be a breeder of filth that shall be a hot-bed for the generation of pathogenic microbes that will most likely attack others and cause disease in them. How far it shall intervene to control and stop the propagation of contagious diseases. This directly introduces the associated term "Sanitation." This has to do with the causation of disease and what can be done to prevent the spread of contagious and infectious diseases—and has to do with the removal of that class of causing conditions that are too widespread and involve too much expense for the individual or small community.

Hence, to carry into effect any efficient sanitation to benefit the people at large, laws must be enacted and formulated and the resultant work permanently done so as to be transmitted from one generation to another, with the best possible results.

These laws must be so as to, if necessary, enlist the police powers of the State for their execution; for there are those who when not sick are much inclined not to regard the safety and well-being of others. These ideas have been crystalized into law in our State under the title of a law creating the State Board of Health and the enactment of an associate law to regulate the practice of medicine. They both had

their origin in the Illinois State Medical Society.

In the May meeting of that Society in 1876, at Urbana, Champaign county, Jr. S. H. Birney, of that city moved that a committee of five be appointed to memorialize the legislature on the subject of a State Board of Health and the Regulation of the Practice of Medicine. Drs. E. W. Gray, of Bloomington; Wm. M. Chambers, of Charleston; S. H. Birney, of Urbana; Wm. Massie, of Paris, and B. F. Haller, of Vandalia, constituted that committee, and on July 1 of the next year, 1877, these laws went into effect.—One creating a State Board of Health, and one Regulating the Practice of Medicine.—The first, creating a State Board of Health, embraces 14 sections.

I do not deem it necessary at this time to discuss more than a few sections of 'his State Board of Health act, as it has been in force 23 years.

Sec. 2. *Powers and Authority of the Board*—The Board of Health shall have the general supervision of the interest of the health and life of the citizens of the State. They shall have charge of all matters pertaining to quarantine, and shall have authority to make such rules and regulations, and such sanitary investigations, as they may from time to time deem necessary, for the preservation or improvement of public health; and it shall be the duty of all police officers, sheriffs, constables, and all other officers and employees of the State, to enforce such rules and regulations, so far as the efficiency and success of the Board may depend upon their official co-operation.

Sec. 3. *Registration of Births and Deaths*—The State Board of Health shall have the supervision of the State system of registration of births and deaths, as hereinafter provided; they shall make up such forms and recommend such legislation as shall be deemed necessary for the thorough registration of vital and mortuary statistics throughout the State. The Secretary of the Board shall be the superintendent of such registration. The clerical duties and

the safe keeping of the bureau of vital statistics thus created, shall be provided by the Secretary of State.

Sec. 4. *Physicians and Accoucheurs to Register and Report*—It shall be the duty of all physicians and accoucheurs in this State to register their names and post-office address with the County Clerk of the county where they reside; and the said physicians and accoucheurs shall be required, under penalty of ten dollars, to be recovered in any court of competent jurisdiction in the State, at the suit of the County Clerk, to report to the County Clerk, within thirty days from date of their occurrence, all births and deaths which may come under their supervisions, with a certificate of the cause of death, and such correlative facts as the Board may require, in the blank forms furnished as hereinafter provided.

Sec. 5. *Report of Birth or Death in Absence of Physician or Accoucheurs*—Where any birth or death shall take place, no physician or accoucheur being in attendance, the same shall be reported to the County Clerk within thirty days from date of (its) occurrence, with the supposed cause of death, by the parent, or if none, by the nearest of kin, not a minor, or if none, by the resident householder where the death shall occur, under penalty as provided in the preceding section of this act.

Sec. 8. *County Clerks to Keep Registers and Records*—The County Clerks of the several counties in the State shall be required to keep separate books for the registration of the names and post-office address of physicians and accoucheurs, for births, for marriages, and for deaths; said books shall always be open to inspection without fee; and said County Clerks shall be required to render a full and complete report of all births, marriages and deaths to the Board of Health, annually, and at such other times as the Board may direct.

Sec. 9. *Board to Prepare Forms for Reports*—It shall be the duty of the Board of Health to prepare such forms for the record of births, marriages and deaths as they may deem proper; the said forms to

be furnished by the secretary of said Board to the County Clerks of several counties, whose duty it shall be to furnish them to such persons as are herein required to make reports.

The powers and duties of the Board of Health are very tersely and clearly defined in section 2—which I first read and it is seen that that power is almost absolute when to be wielded in the interests of the health and life of the citizens of the State in quarantine epidemics, contagious diseases and general sanitation. And they can command public officials, sheriffs, police and private citizens, to assist in carrying out sanitary measures and quarantine defense. So we have little to complain of in that direction.

The State seems to place abundant power in the Board in some ways. But in other ways we have some complaint to make, not to the people and not of the State, but of the very doctors who ask that this law be put among the statutes of the State. I refer to the creation of vital statistics in the way of reporting deaths and births. It is a notorious fact that while the physicians of the State of Illinois, through their association organizations asked that this law requiring such report of births and deaths be put on the statutes, they are not conforming to its requirements in any efficient manner and without a good reason. I need not reiterate in your hearing the great benefits sanitary science derives from vital statistics as is sought to be procured by the act.

I agree with many and perhaps all of you that the requirements of the law are excessive. There are some things that you are required to state by the form, that ought not to be so, and I think that the time and conditions of the reports of births and deaths could be changed or modified to advantage. I think too that some others ought to be made responsible for much of the report, but as the physicians should, and ought, within their knowledge as is specified in the law, to report, respectively, that a birth occurred on a certain date to given parties; or the death of a certain per-

son, giving the name, occurred at a certain place and date, and the cause of death when known. The objectionable features of the blank forms now in use, the present Board of Health is not responsible for. I suspect they ought to be revised. They might more conveniently be put on a postal card. The time of reporting—that of thirty days after each case of birth or death—might be changed so that the report could be made on the first or last day of each month, or quarterly.

Probably the most forcible objection physicians make to reporting is that they are not paid for it, and with this it is usually said “you can not compel one to do something for nothing.” To this it may be said that it is not true that the law can not compel one to do something for nothing, and when you consider the privileges and immunities you, as physicians, enjoy under the associate law—regulating the practice of medicine, that I shall soon discuss, this compensation objection seems undignified and unbecoming a scientific, liberal profession like that of medicine.

Sec. 12. *Annual Report*—It shall be the duty of the Board of Health to make an annual report, through their secretary or otherwise, in writing, to the Governor of the State, on or before the first day of January of each year, and such report shall include so much of the proceedings of the Board, and such information concerning vital statistics, such knowledge respecting diseases, and such instruction on the subject of hygiene, as may be thought useful by the Board for disseminating among the people, with such suggestions as to legislative action as they may deem necessary.

You ought readily to feel the force of the necessity of obeying the law in this regard.

Gentlemen and physicians, you ought to report your births and deaths so in the face of wanted legislation the Board will not have to insist on the matter.

The associated law coincident with the one creating a State Board of Health is the one regulating the practice of medicine, which was amended ten years later, 1887,

and again in 1899, and now in force as then provided. It is in twelve sections, the provisions of which you are familiar.

A necessary part of the better sanitary condition of the State must be the regulation of the practice of medicine by the State Board of Health, as is contemplated in the provisions of these two associated acts.

Those who are to advise the individual while in contact with him as physician or advisor of the family in the honorable relation of family physician, ought to be well qualified so to do; and in this the State has provided that every physician shall possess at least a *minimum* qualification as a basis from which to intelligently advise in special and individual sanitary matters, and in selecting those to advise, in an official way, a selection may be made from among the best—where mere politics does not interfere.

In this way, the selection of the best talent and highest grade of sanitary work *may be obtained*.

There is however, a barrier in the way of efficient work by the Board. This is that the Executive officer of the Board and the Executor of the sanitary rules, regulations and laws of the Board and the State, is not a member of the Board, and no member of the Board is legally entitled to pay for his services.

This, to say the least, is an awkward organization for such important work as regulating the sanitary affairs, general and individual, of the State. A physician who is competent to do such service and serve as a member of the Illinois State Board of Health must have a practice. If he has one, he is not going to leave it for days, without compensation. This is too self-evident to require argument.

Gentlemen and fellow members of this Society, which originated the laws creating a State Board of Health and the regulating of the practice of medicine, you ought to spurn the idea of doing such important and responsible work as is required of the Board for nothing. And in this connection, I say, why create another Board simply to do the

examining of the applicants to practice medicine in the State, also, to work for nothing, when all the work can easily be done by the one Board, as now, if paid a reasonable *per diem*? Inasmuch as the Board would not, in any event, do the examining more than to superintend it, as now is done, with corps of clerks and monitors. Why not simply amend the present act, so as to salary a President of the Board, who shall be the *Health Officer* of the State, and he be required to superintend the examining, and, together with the Secretary, already salaried, and his associate members of the Board paid a *per diem* when required to assist—do all the work required under the law. The Health Officer so created to devote his entire time to the study of sanitation, etiology and preventive medicine, and jurisprudence, and State medicine.

Before any more laws are created regulating the practice of medicine in the State, let us organize a body better calculated to execute those already in force, and most assuredly one *above working for nothing*, and thereby failing to execute the laws that would require a simple, nominal performance on the part of physicians themselves.

The perception of the Board of Health ought to be ever widening and as far as compatible take in the whole purview of Sanitary Science and State Medicine as they develop and the public mind becomes inured to needful and useful restrictions and compulsions.

Not only should it take into consideration the sciences of State Medicine and Sanitation as applied to the ordinary contagious diseases, such as scarlatina, small-pox, and diphtheria, impure water supply, and food adulterations, and allied matters, but also the full source, relations and nature of tuberculosis, syphilis, and alcoholism. The ravages to life and health of all three being very great and perfectly preventable.

The inter-dependence and ever widening baneful influence of alcoholism, syphilis and gonorrhoea and their tendencies to per-

meate all conditions of society, make them of such importance that they can not be ignored or longer concealed. Hence it is but wisdom for our Boards to devise ways and means of tabulating their ravages and influences on the health, life and intellectuality of the people, and compile the same for reference in vital Sanitary and Mortuary Statistics, so the public may be made aware authoritatively of their baneful tendencies. This is of vastly more importance than the advertisement of a quack or the sale of a nostrum, both of which should be prevented.

The Board has ample power *when well paid and properly organized* to thus widen and perfect its work provided it is so intellectually constituted.

The profession of the State, irrespective of "*ics*," "*isms*," or "*pathies*," ought to afford the Board whatever reasonable assistance is needed to thus perfect and render its work efficient.

In these matters I hope we shall all become of one mind. At least will compare notes and agree upon something tangible and philosophical, get our sanitary laws well systematized and their executors well organized, and untrammelled in their work, so that the people may learn to look to the State Medical Society and its Legislative Committee and Board of Health for a reasonable protection from the ravages of epidemics, pestilence and preventable diseases.

I cannot in this time mention a tithe of the things that should be done and recommended by this Society in matters of detail, but there are two matters which stand out prominently just now. One has been impressed emphatically on the minds of the people almost all over the State in the past few months, and that is the necessity for some form of uniform, compulsory vaccination. Certainly after the experiences of the past year with small-pox the people by their representatives in General Assembly will not hesitate to enact some kind of a rule or law empowering the Board of Health to enforce uniform vaccination.

The other is that of determining some uniform, desirable and pure water supply

other than that saturated with the immediate washings of the earth covered with garbage and offal, before referred to, and saturated with sewage as the streams are or are liable to be.

It is childish and puerile to talk about clean water from streams that receive sewage from the cities and towns on their banks. To say there is clean water from such sources without thorough filtration to perfect clearness and transparency, is a traversity on learning. And to say that water has sewage and decay enough in it to make it muddy and opaque is without microbes, in the face of the fact that microbes and bacteria of various kinds adhere to the particles of solid matter in all waters, by preference, is a random, unauthenticated expression that ought not to come from our profession, and if uttered, deserves rebuke. Such water is dirty and the State ought to provide or suggest some way by which the public, who must depend on such for drinking and culinary purposes, might be protected or taught how to protect themselves against its deleterious and dangerous influences.

Gentlemen and Ladies, members of the great Medical Society of the State of Illinois, you, in your associated and organized capacity, have a standing legislative committee and through it have originated a law creating a State Board of Health, and created a law giving it power to preserve the health and physical well-being of the citizens of the State in a public way, can have a laboratory at your command, and so equipped, can make every investigation necessary to devise ways and means by which a pure, potable and culinary water can be furnished by all public supplies. This you ought to do and I assure you that you can advocate no grander and more laudable scheme.

The ordinary supplies now in use and available may be regarded as sufficient for mechanical and general detergent purposes, but to say and do the least, you can provide that culinary and potation waters shall be filtered to limpidity and freedom from visible particles of sewage debris to which mi-

crobes and bacteria adhere. I think a fair intelligence, with the aid the State University will cheerfully give, can even devise a supply of water for these two purposes superior to what I have suggested. A little time given to the regulating and perfecting of a pure water supply, and some other sanitary measures referred to and obedience to the laws yourselves, and less stress on regulating a mode of examining doctors, might inure much more to be public needs.

DISCUSSION.

DR. JOHN A. ROBISON, Chicago: This paper is a very important one, and I desire to say a few words in connection with the care of consumptives by the state. If the State Board of Health could be reorganized on the lines suggested in this paper, it would be in a position to do several things. In the first place, it would enable us to get better and more reliable medical statistics. A few months ago I endeavored to collect some statistics in regard to tuberculosis in Illinois which were not available from the ordinary sources of information. I sent out over two thousand circulars inviting physicians to send me certain statistics. Many of these physicians may have thought that my request was of a personal nature; they may have thought I had a good deal of cheek to make such a request, and that in so doing I might violate the confidence which exists between patient and physician if they gave me statistics in regard to the prevalence of tuberculosis in their own practice. The result was that I received only nine replies out of over two thousand inquiries. If the State Board of Health were reorganized and its members paid sufficient salaries, they could gather interesting and very valuable statistics. They could not only do that, but they could regulate the sanitary condition of all parts of our state. They could oversee the schools, factories, hotels, and all public conveyances—in fact, it seems to me, the duties of the Board of Health would be so numerous and so far-reaching that its members should receive very good salaries in order that the work may be done thoroughly. I trust other members will discuss this question.

DR. JAMES A. EGAN, Springfield: The State Board of Health has on different occasions been criticised for not enforcing certain sections of the medical practice act, particularly that section relating to the registration of births and deaths. Physicians who have done this, I feel assured, have not read the law. The State Board of Health has no power to enforce that section any more than to compel county clerks to make a report to the Board. Beyond this, the Board cannot go. It is a statutory duty for county clerks to compel physicians to furnish them with reports of deaths and births, and these county clerks in turn usually report the facts to the State Board of Health. Now, the fact of the matter is,

physicians do not report to the county clerks, as a rule, and consequently they in turn do not report to the State Board of Health. In 1898 I tried to find out how many deaths were reported during the year in different counties, and according to the reports I received, some counties had no births, and some few deaths. Now, what is the State Board of Health going to do with such statistics? We cannot get physicians to make these reports. I sent out a circular some time ago to physicians in one county in the state in which I expected there was tuberculosis, and I asked for information, and I got one per cent of answers. In some instances I enclosed a stamped and addressed envelope, and even then they did not reply.

DR. L. H. CORR, E. St. Louis: In connection with this discussion I want to say, that with the present blanks that are furnished physicians, it is difficult to make good reports. Formerly, the blanks that were furnished us under the direction of the State Board of Health were easily filled out, and gave us good records. I understand the present form of blank is not issued by the State Board of Health, but by a firm that supplies the Board. These are unsatisfactory. I think if the proper blanks were furnished us, we would do much better.

DR. JAMES A. EGAN, Springfield: I wish to explain: The State Board of Health has not sent out any blanks, nor does it see any use in doing so. The old blanks, as I said in my remarks at Galesburg, were not adapted to the overworked physician. If I remember rightly, there were eighteen different items to fill out, fifteen of which were superfluous. This matter was brought to the attention of the present Board. We thought it useless to send out blanks, for the reason that physicians would not and did not fill them out.

DR. CORR, (closing the discussion): The position taken by Dr. Egan is true, but it seems to me the Board should have the power to compel county clerks to furnish information of births and deaths, etc., and the Board should know the reason why they do not carry out their work. Statistics ought to be prepared, and if physicians do not make reports to the county clerks, as they are supposed to do, they ought to do so. I think the State Board of Health should modify the blanks to suit physicians, as they have the power to do. Vital statistics are of prime importance. Physicians ought to furnish them for the good of the public at large. About a year ago I questioned a hundred representative physicians of the state regarding this matter, and no one objected to making these reports. It was said that the blanks were voluminous and it required a good deal of time to fill them out, but they can be much simplified.

In reference to the control of syphilis and tuberculosis, we ought to take pride in doing something along this line. We are the foremost state in the union in reference to some matters. Let us have a system of vital statistics, embracing tuberculosis and syphilis, and make it superior to anything that we know of at present. Let us try to get credit for doing something.

The Illinois Medical Journal

PUBLISHED MONTHLY.

Official Organ of the Illinois State Medical Society.

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All remittances for subscriptions should be sent to E. J. Brown, Treasurer, Decatur, Ill.

The Society does not assume responsibility for any statements or opinions published in this journal.

Entered at the Postoffice at Springfield, Ill., as second-class matter.

Springfield, Ill., February, 1901.

LOCAL SOCIETIES.

In this issue will be found names of members of city and district societies, being the third and last installment of the membership of the local medical organizations of the state. The ordinary reader will hardly appreciate the difficulties encountered in securing the data of eighty different societies embracing a membership of nearly 3,500 persons. That so few mistakes have been made in the names and address is remarkable. Acknowledgments are due to the chairman of the Legislative committee, C. E. Black, of Jacksonville and to the secretaries of the various local societies for their faithful labors in this great work which will stand as a monument marking an era in the history of the medical organization of the state. Upon this foundation will soon be erected a grand state organization which will number in a few years over four thousand members. The great question is how long will be required to awaken the dormant, but powerful forces of the medical profession. Why not accomplish this work in one year instead of waiting five or ten years for it?

K.

MAGNETIC HEALERS.

To bring to the knowledge of every practitioner in the state the construction placed upon Section 7 of the Medical Practice Act of 1899, it will be necessary to quote the latest decision of the Appellate Court, Third District, which decision is the third of its kind and was filed December 7, 1900.

It seems rather strange to one who is not a lawyer why circuit courts should maintain an opposite view to that of the Appellate Court and occasionally decide that magnetic healers cannot be punished under the law. Such has been the case in spite of the Appellate Court's decisions. This third and last decision emphatically declares that a magnetic healer who resorts to the use of material means, material remedy, massage treatment, anything other than mental or spiritual means, is clearly within the view of the statute. To quote, "It is clear to our minds that rubbing or manipulating the affected parts is the employment of a physical agency as distinguished from a mental or spiritual one. There may be a combination of the two, as was testified to by the appellee, but to bring the person applying the treatment within the exemption, the treatment must be exclusively mental or spiritual. The term "material" remedy means a physical remedy. Webster thus defines material: "Relating to, or consisting of matter; corporeal; not spiritual; physical." "

W.

A NOTABLE ELECTION.

One of the most remarkable political contests which has ever engaged the attention of the people of Illinois was terminated Thursday, January 17, 1901, when Shelby M. Cullom was nominated to succeed himself for the high office of senator.

Mr. Cullom had served his neighbors as a representative in the legislature and congress, his state as governor and senator and his character was well known. No charge of moral or monetary deviation had ever been brought against him. On the contrary he was a poor man and his high ideals had found expression in the appointment of men of character to the various positions under his control. The State Board of Health was created while he was serving as governor and a board was appointed which has never since been equalled for character and ability. The various state institutions had for superintendents men who were a credit alike to the profession and the state. Certain men who have followed him in the gubernatorial chair have not adhered to these high ideals. They have sought to advance their political fortunes by prostituting these sacred trusts. The unfortunate inmates have not been able to speak for themselves but the great heart of the profession of medicine and of the common people have kept them in mind. The day of reckoning arrived. The forces were arrayed one against the other. Never was there a better exhibition of the strength of public sentiment. The better classes of the commonwealth were aroused. They rallied to the defense of the grand old man of Illinois politics. All the manoeuvres of a powerful political machine availed nothing. The sentiment of at least ninety per cent of the medical profession was with the majority and against the machine. This fact was not hidden. It was potent in gaining the victory. The result has been that a moral victory reaching in its effect far beyond the office or officer to be chosen has been gained. It should and we believe will have a valuable influence on the future history of the state institutions. This victory together with

others to be gained will again place them on a high plane creditable to the profession and the state. It has shown that the profession in this state has rights, that it knows the remedy, and has sufficient strength to resent maltreatment.

K.

Correspondence.

Carlinville, Ill., Jan. 11, 1901.

Dr. Kreider—I received a letter from Dr. Horine, the interested party in the malpractice suit, who wishes me to make a few corrections in our report.

He wishes it understood that Drs. Has-
kel, Yerkes and Fischer were witnesses for the defense as well as the prosecution.

Also, he says, the verdict was set aside by the Judge upon the grounds that "the evidence failed to support the verdict."

Yours sincerely,

J. Palmer Matthews, M. D.

New York, Jan. 7, 1901.

To the Editor:

Dear Sir: I intend to publish a second paper on the use of the suprarenal capsule in organic heart disease. Will you kindly ask the readers of your journal to send me the reports of their cases as follows:

1. The condition of the heart and pulse and pulse rate.
2. The effect on the heart, pulse and pulse rate within ten minutes after the suprarenal powder, three grains, is chewed and swallowed without water, by the patient.

Yours truly,

Samuel Floersheim, M. D.,
218 East 46th st.

Editor Journal:

I am trying to study the subject of "Paralysis of the Sphincters," following forced dilatation of the anus and I find it difficult because of the lack of recorded facts.

Cases occur, but nobody publishes them. Authors discuss the dilatation, but are very

shy of talking about paralysis. It would please me very much if any reader who knows of any such cases to report the same to me by answering the following questions:

1. Number of cases seen or authentically known to you? (Not necessary to state names of patients or operators.)

2. What method of dilatation brought on each case so far as known?

3. Persistence or temporariness and degree of completeness of the incontinence of the feces.

4. Any other facts known?

It seems to be the generally accepted observation that these cases have largely occurred at the hands of orificial surgeons, those who perform what is known as the American Operation (a slight modification of Whitehead's Operation) with forced dilatation super-added.

Any and all information bearing upon the subject will be gratefully received by me.

Edmund Andrews,
3912 Lake Ave.,
Chicago, Ill.

Galesburg, Ill., Jan. 8, 1901.

To the Editors:

The following letter has been sent to Judge Yates by the committee appointed by the Judicial Council at its meeting in Springfield:

The Honorable Judge Yates,
Jacksonville, Illinois.

Dear Sir: The undersigned were appointed a committee to prepare for your consideration and reference a statement embodying the facts set forth by the members of the Illinois State Medical Society's Judicial Council during their brief audience with you in Springfield.

As stated on the occasion referred to, this movement of the organized profession of the state originated in the criticism of the last executive that no sufficiently active interest was taken by the medical profession to protect the State's institutions from the former's incompetents.

It was therefore determined at the last

meeting of our organization to assume a more positive and watchful attitude in this respect, and so advance by every means in its power the choice of individuals known for personal efficiency, representative character and good standing, to subserve the medical or medico-administrative interests of the various institutions of the state.

It is for such purposes, therefore, that the State Medical Society, through its Judicial Council, appeals to you, the Chief Executive of the Commonwealth. It does not want to disbar itself by the assumption of even appearance of dictation. It merely appeals to you, in its legitimate representation of the feelings of nearly four thousand medical men and women scattered throughout the state, to see to it that only those who possess the best technical ability and professional standing, and whom the profession as a body can endorse be selected to represent its character and advancement before the whole people. To that end, our committee solicits from you the privilege, if need be, of advising with you respecting the professional acceptability of appointees.

To reiterate—we make this appeal in the interest of no particular individual, individuals or faction, but to the end of the common good, professional honor and pride and the credit of your administration.

Signed by the committee,

E. P. Cook, President,

O. B. Will,

J. F. Percy, Secretary,

Sincerely yours,

J. F. Percy.

BRIEF NOTES FROM THE PACIFIC COAST.

BY JOHN H. HOLLISTER, M. D., CHICAGO.

FIRST SERIES.

Who ever expects to find in California in all its parts—a paradise—must be doomed to more or less of disappointment. Such is the unique topography of the state, that its problems in climatology are often in-

tricate of solution. Within a like area it will be difficult to find elsewhere the parallels of conditions which exist in this single, immense state.

It has for its northern boundary the forty-second degree of latitude. The Pacific forms its western shore-line for about seven hundred miles. Its southern limit is a conventional one, assumed by our government and assented to by Mexico. Its eastern limit is eternally fixed by that lofty range of the Sierra Nevada mountains, whose peaks are covered with perpetual snow and which forms the great western divide which severs this state from relationship with the vast and arid plains which lie between their lines and the Rockies' far away to the east.

The Sierra's are about two hundred miles distant from the Pacific and it is a fact, remarkable, how nearly they parallel all the angles of the ocean, so that it may be quite truthfully stated that the state represents an immense parallelogram about seven hundred miles from north to south and two hundred miles in width from east to west; thus giving an area of one hundred and four thousand square miles. Not the least interesting fact which helps to complicate the climatic problem, is that of a second coast range, alike parallel with, and distant about thirty to fifty miles from the shore-line; with an average altitude of from two to six thousand feet. Between the Sierra and the Coast Ranges lie the great California valleys which form the major part of the state. To the west of these coast lines, between their foot hills and the ocean, are located a multitude of charming health resorts, many of which are already famous throughout the world and of which, later, we shall have occasion to speak.

While outlining the topography of this country another important fact, inseparably connected with its climatology, should also be noticed. At about latitude 35°—say 250 miles south of San Francisco, a strong spur of the Sierra Range strikes due west, mingles with the Coast Range and juts out boldly into the ocean at Point

Conception, forming one of the most prominent land-marks on the Pacific Coast. As this cross-range has an average altitude of from three to six thousand feet, it forms a mighty mountain barrier against the cold air currents from the north and affords a distinct line of demarkation between middle and lower California. From Point Conception south to San Diego, approximately two hundred miles by the shore-line and between the sea and the foot hills averaging thirty to sixty miles away, lies this wonderfully protected little area of territory which has not unjustly been termed the "Paradise for Invalids."

Within these limits we have upon the ocean beach, health resorts, whose names are already familiar, such as Santa Barbara, Santa Monica, Rodondo, San Pedro, New Port, San Juan, Catalina Islands, Ocean Beach, and the famous Coronado Beach at San Diego. Among the foot hills from thirty to fifty miles from the sea, are numerous hamlets, towns, and villas, many of them of surpassing beauty and having at hand every comfort and luxury which wealth can command. Pre-eminent among these is the beautiful Villa of Pasadena. Riverside is a delightful resort for winter, and Redlands, still higher up the valley when viewed from Seniley Heights, is one of the most beautiful panoramas in all California. Mountain streams in ages past have furrowed out these mountain sides and the beautiful little valleys that thus creep up from the ocean to the headlands are almost innumerable. Here hamlets and villas beyond number afford secure retreats for those in quest of air that is pure, mild, and of uniform temperature.

There is every variety of temperature as you go from shore inland until you may reach points where the snow is perpetual. There are locations where the ocean morning breeze is as uniform as is the rising of the morning sun, and there are places where by mountain ranges those breezes are shut off. In winter time the foot hill resorts are deemed most favorable. In summer these become too heated and people clamber down to the beach for sea bath-

ing and for the cool nights which are as sure as that the sun is to go down. Thus within a limited space health-seekers are apt to become nomads in their habits.

From what has been thus briefly outlined it may be at once inferred that extremely varied climatic conditions exist here and almost within hailing distances. Hence, it becomes a question not always easy of solution just where to locate an invalid to best meet his or her particular needs.

Of these climatic conditions Dr. Remondino of San Diego has made continuous study for many years and is doubtless the best authority upon this subject. He groups the climates of this region under six distinct varieties, each having its peculiar claims. These are as follows: 1—A purely insular climate. 2—The peninsular climate. 3—The coast climate. 4—Valley and foot-hill climate, with altitudes from 200 to 2,500 feet elevation. 5—The mountain climate with from 2,500 to 9,000 feet elevation. 6—The desert climate, east of the San Bernardino Range as at Indio, which is 360 feet below the sea level with adjacent elevations of 2,500 feet and broad stretches of desert.

The further study of these varieties and of their adaptation to particular forms and stages of diseases is reserved for another paper, which it is hoped may prove of practical value to the readers of the Journal.

950 S. Olive Street,
Los Angeles, Cal.

County and District Societies.

At a recent meeting of the Chicago Medical Examiners' association the following officers were elected:

President, Denslow Lewis.
Vice-President, James E. Stubbs.
Secretary, James H. Stowell.
Treasurer, J. Homer Coulter.

Dr. John Lincoln Porter read a paper on the relation of deformities to life expectancy which was discussed by Drs. Coolidge, Woley, Dougherty, Coulter, Henry F. Lewis, Stowell, Stubbs, Cotton and the President.

James H. Stowell, Secretary.

The Vermillion County Medical Association met the evening of the 11th, in the Danville city hall at 8 o'clock p. m., called to order by the President E. B. Cooley of Pilot.

Dr. J. M. Guy of Danville read a very highly appreciated paper on brain surgery which brought out a general and interesting discussion closed by the essayist in which he reviewed a large number of cases of brain injuries coming under his observation during the past few years.

The president appointed a standing committee on membership consisting of Drs. Guy, O'Haver and Walton.

There being no further business the association adjourned to the February meeting.

E. E. Clark, Secretary.

The Chicago Academy of Medicine met Jan. 11, 1901. Dr. G. F. Futterer presented specimens illustrating the development of "Gastric Cancer from Gastric Scars." These specimens included the results of experimental procedures on rabbits which tended to demonstrate the influence of mechanical factors in the production of cancer. These specimens were discussed by Dr. Leo Loeb, who pointed out their suggestiveness. Dr. C. S. Hallberg read a paper on "Ointments in the Pharmacopœia," in which he discussed the various purposes for which ointments were intended and showed the desirability of having the pharmacopœia adjust the form and vehicle of the ointment to its therapeutic use. Dr. J. Frank read a membership thesis on "Uretero-Intestinal Implantation" in which he supported the results previously reported by Dr. R. Peterson to the Academy. He suggested a new procedure. The Academy then adjourned.

Jas. G. Kiernan, Secretary.

A regular meeting of the Deutsche Medicinische Gesellschaft of Chicago, Ill., was held November 22d, in the Bismark hotel. Dr. Futterer presiding.

Dr. Futterer demonstrated the circulation of the blood in the mesenterium of a curarized Necturus. Dr. Futterer demonstrated specimens of actinomycosis of the lung, the liver and the heart. In this case the diagnosis was made *intra vitam*.

Dr. Alexander Behrendt spoke on the treatment of habitual constipation. The symptomatic treatment—purgatives or enemata—cannot effect a cure, only the rational treatment: 1. Regulation of diet, which helps in milder cases only. 2. A combination of massage and electricity. 3. A combination of dietetic regime with massage and electricity, this latter method always being effective. 4. The new Boas method consisting in the application of an ether spray. 5. The new Ziemssen consisting in frequent stomach washing with Wiesbaden Kochbrunnen or physiologic salt solution.

In the discussion which followed Drs. Heyn, Alfred Shirmer, Emil G. Beck, Decker, Black and Futterer participated. Attention was also

called to the good influence of exercise and gymnastics and to the evil influences of the corset. Dr. Alfred Shirmer mentioned the treatment with the bacillus coli and Dr. Futterer reported several cases cured with black coffee.

Dr. Max Gilbert was accepted as a member by the unanimous vote of the society.

A. DECKER, Secretary.

The regular monthly meeting of the Decatur Medical Society was held on Thursday evening, Oct. 25th, in the Elk's club rooms. A communication from Carl E. Black of Jacksonville, secretary of the committee on Legislation of the State Medical Society was read, asking for better organization in the societies for the purpose of legislation and the furtherance of other matters calculated to advance the profession. On motion of S. J. Bumstead, a committee of three was appointed to take the request into consideration and take action in the matter. The committee consists of S. J. Bumstead, J. N. Randall and W. C. Wood.

The program included a case of Diabetes Insipidus by W. C. Bowers. C. Martin Wood's case of Leukaemia was called out of the city, but had some of the patient's blood and was able to make his talk profitable without the patient. Wm. Barnes exhibited some Pathological specimens. W. T. Bridges of Stonington brought with him George White, the boy who jumped from the fast train at Stonington. The doctor's description of the injuries and his talk on the case were very interesting.

Wm. Barnes and C. Martin Wood were appointed to assist in preparing a program for the next meeting.

The physicians from out of the city who were present at the meeting were: Drs. Bridges of Stonington, Hoover of Lovington, Wait of Johnson, Vermont, Vance of Bement, Coe of Stonington and Botts of Warrensburg.

Decatur, November 22, 1900.

Meeting called to order by W. C. Wood, in the absence of President H. C. Jones. Minutes of the last meeting read and approved. Roll call.

Dr. Logan a Medical Missionary from China gave a very interesting talk on Medical practice in China. He showed some instructive models of bound feet and shoes. A vote of thanks was tendered him.

The subject of Typhoid fever was then taken up and the symptoms and diagnosis treated by Dr. Pollock. The treatment was discussed by Dr. Myers. A very general discussion ensued, nearly all taking part. Dr. Lynn Barnes and Dr. Anderson were appointed the program committee for the next month.

Those present from out of town were: Drs. Logan of Bethany, Saling of Stonington, Hoover of Lovington, Jones of Redmon and Davidson of La Place.

Chicago Pathological Society, regular meeting, January 14, 1901. Dr. L. Hektoen, President.

Dr. E. R. Lecount made a report on the histologic changes found in the tissues of animals inoculated with *Diplococcus Scarlatinae* (Class). The changes described differ only in degree from those described by Pearce and others in persons that die from scarlet fever, the most notable difference being the lack of lesions in the kidneys in the animals. Hyperplasia of lymphoid tissue, focal necroses and plasma cells in situations that betoken their presence in the blood were found in the animals inoculated.

Dr. W. H. Wilder read a paper on Tuberculosis of the Iris and showed specimens from a case observed by him.

Drs. D. R. Brower and H. Gideon Wells reported a case of paralysis of the cranial nerves of the left side, from the fifth to the twelfth inclusive. This paralysis had come on in the course of a few months and then remained stationary for twelve years. At no time were there pressure symptoms. On account of the history, coupled with a slight improvement under iodides and the occurrence of twelve miscarriages, a syphilitic lesion involving the meninges and producing an infra-nuclear paralysis was diagnosed. Death resulted from nephritis. At autopsy a tumor was found in the dura, exactly as located clinically, involving the left petrous bone. Microscopically it was found to be an endothelial tumor, the periendothelioma of Borrmann, with some spiculae of bone and many multi and uninuclear giant cells. Microscopically it resembled somewhat a psammoma.

Dr. Paul F. Morf presented gross and microscopic specimens of three periosteal chondrosarcomas. One of the tumors was from a boy of thirteen, and had developed on the tibia shortly after a contusion of that bone. The other two occurred in young adults, one in a female aged twenty-one, and the last in a male patient aged nineteen years. These two latter tumors were found to have grown from the lower end of the femur. Microscopically the neoplasms all appeared as firm, hard, inelastic, grayish white masses. Scattered throughout their substance were numerous islets, which looked to the naked eye, like hyaline cartilage. Disseminated foci of calcification of pin head size gave the cut section a slightly rough surface. Microscopically the tumors were found to be made up mainly of round and spindle shaped sarcoma cells. The islets which appeared cartilaginous were made up of larger and smaller round encapsulated cells lying in a hyaline and in a fibrous intercellular substance. In the first of the three specimens the invasion of the Haversian canals of the tibia by sarcoma cells could be distinctly traced.

George H. Weaver, Secretary.

At the late meeting of the Clinton County Medical Society held December 7, 1900, in Trenton, Dr. O. F. Baerens, professor of diseases of the ear, nose and throat, in the St. Louis college of Physicians and Surgeons, held

a clinic at which a number of interesting cases were presented and discussed. Several cases of adenoids were exhibited, all showing the typical facial feature as described by the authorities, viz: The open mouth, hang jaw, contracted nostrils, drooping eye lids, broadened bridge of nose, highly arched and V shaped palate, irregular teeth, imperfect articulation in speech. A history of catarrhal troubles, impairment of hearing, apoplexia and reflex nervous phenomena. The treatment suggested was surgical; the growth to be removed by Gottstein's curette or Loewinberg's forceps under anaesthesia. Various other procedures were mentioned in addition.

A case of atrophic rhinitis in a man of 40, occupation, coal miner. History of asthma. Tubercle in lungs suspected. The presence of crusts, large and evil smelling, black in color and due to inhalations of coal dust, the attending anosmia or loss of smell, the loss of tissue of the turbinate and in the naso-pharynx were pointed out. The treatment recommended was a thorough cleaning of the nasal chambers twice daily by a detergent douche, the post-nasal douche preferable, the wearing of a respirator while at work, the administration of some iodine preparation and attention to the general health, diet, clothing and hygiene.

A case of extreme septas deflection due to trauma presented itself and the symptomatology was in part as follows: Stenosis of one nasal chamber, hypertrophy of inferior turbinate of the other, continuous hawking and spitting, especially in the morning; pharyngeal irritation and headache. Treatment considered was entirely surgical in character. Asch's operation was spoken of together with other methods, which are being practiced by rhinologists at the present time.

One case of chronic catarrh of the middle ear: Points brought out were the various hearing tests by means of watch, tuning fork, etc., the co-existence of chronic catarrh of the nose in the great majority of cases of deafness, the involvement of the middle ear through the Eustachian tube from naso-pharyngeal disease. The methods of treatment such as vaporization and massage, etc., were mentioned.

A few other cases were examined, but diagnosis deferred owing to the deficient illumination, which had to be contended with under existing circumstances.

Hypertrophic rhinitis, epistaxis, etc., and a number of operations were described and instruments shown and their usage demonstrated. A number of drawings and diagrams were used in explanation and some of the new remedies were discussed as to their efficacy in certain troubles.

The guest, Dr. Baerens, expressed himself highly pleased with the courteous and hospitable treatment accorded him and promised to be present at a later meeting which is to be held in Carlyle.

D. M. Broening, Secretary.

The Crawford County Medical Society met in the office of Drs. Rafferty, January 10, 1901, at 1:30 p. m., T. N. Rafferty, president, in the chair. Members present: Drs. A. G. Meserve, Cato, Voorheis, Price; Firebaugh, Cooley; Hoskinson, Kirk; T. N. Rafferty, Barlow, and L. J. Weir. Visitor, Dr. Mitchell of Oblong. J. B. Cato presented a paper on "Acute Laryngitis" in a masterly way—its etiology, symptoms, pathology and treatment. Hot foot bath and mustard draft on throat at the beginning frequently lessens the severity materially in the doctor's experience. Calomel or other physic was recommended and if the case is the ordinary it needs but little other treatment.

During the discussion the importance of looking in all cases of sore throat for evidences of diphtheria was brought out.

A. G. Meserve's paper on "Diet in Typhoid Fever" was read. He had found that symptoms were good or bad, according as diet was good or bad. He recommended milk given with spoon, so that the curds will be small and not large like that found in stomach when a large drink is taken down at once. Broths, egg-nog, farinaceous foods, etc., are good when milk causes flatulence or is disgusting to the taste. During convalescence the firmness of the doctor in not allowing indigestible food often prevents a funeral. Water all the way through an attack of typhoid fever in abundance was recommended and insisted upon. Plain water, lemonade or water with ten drops of hydrochloric acid to the glassful. The subject was discussed by all members present.

J. W. Kirk then read a well prepared paper on "The care of the Consumptive," in which he stated that the consumptive should be told all about his disease that he may appreciate and assist in the management of his case. The care of the sputum the arrangement of the sick room and especially the importance of the patient living out of doors, were discussed. Food then received attention, meat was considered the ideal diet, but the individual case must be studied and fed intelligently. Exercise was insisted upon. Dr. Firebaugh in leading the discussion, emphasized the importance of exercise out of doors. He considered it not good policy to send patient away from home to health resorts, away from husband or wife or friend, but thought it decidedly the best to have patient move to another climate and stay there. Dr. Barlow did not like to send patients south, for the reason that they had not done well, other members were of the same mind. Colorado, New Mexico and California were considered the best places to send consumptives when they are not too far advanced, and when they have money enough to live well and easy while there.

Unfinished business was taken up. Upon motion of Dr. Price, C. H. Voorheis of Hutsonville, was recommended as desirable and qualified for such medical positions as may be within the power of the governor to fill.

Upon motion of Dr. Barlow, Dr. Egan, pres-

ent secretary of the Illinois State Board of Health, was recommended for reappointment, and the secretary instructed to notify the governor elect of the recommendation. T. N. Rafferty, Barlow and Meserve were selected to draft resolutions of respect to the memory of the late B. F. Swofford of Terre Haute, Ind., and report at the next meeting. Society then adjourned.
L. J. Weir, Secretary.

The Chicago Pathological Society met December 10th.

R. F. Zeit read a paper on Uretero-Intestinal Anastomosis illustrated by gross and microscopic specimens and by photographs and drawings.

The paper discussed an experimental study of the pathology and bacteriology of ureteral implantation into the rectum as practiced on one hundred and twenty dogs and implantation of the trigonum into the rectum on twenty-one dogs.

The operations on the animals were done by Franklin H. Martin and Reuben Peterson with a view of devising an operation for cases of malignant diseases of the bladder.

The paper gave:

1. A complete resume of the literature of bilateral uretero-intestinal anastomosis on man and animals showing that no better results can be expected in man than those obtained in animal experiments.

2. The results of careful pathological and bacteriological examination of the operated animals.

3. The results of animal experiments with a view of producing immunity to the bacillus coli communis.

The conclusions reached are, that no matter what may be the operation employed with a view of preventing ascending renal infection, the pathology of ureteral implantation into the rectum is the pathology of pyelonephritis and its sequelae.

All the variations of this form of suppurative nephritis were observed in the operated dogs, from the earliest beginning of ascending infection a few days after the operation up to the healed process with induration and cicatrization and granular contracted kidneys, which were found in all dogs that have recovered from the primary results of their pyelonephritis.

Numerous microscopic specimens and microphotographs were shown to prove that infection could have taken place only by way of the ureters, pelvis of kidney, and uriniferous tubules, and that the pyelonephritis were caused by the bacillus coli communis.

Most of the dogs died of peritonitis due to leakage of urine and general sepsis and pyelonephritis during the first ten days, the primary mortality being eighty-four per cent. Dogs living a longer time died of pyelonephritis, pyelonephrosis, and pyemia, or recovered from the pyelonephritis with contracted kidneys. Specimens were shown of other dogs which appeared to be in perfect health two hundred

and ten, three hundred, and four hundred and five days after operation. All had granular contracted kidneys and still showed evidence of former pyelonephritis.

The ureters are not much diseased, although usually dilated, no matter how severe a pyelitis or pyelonephritis was present.

The bladder is always found to be infected by way of the urethra. In all cases where the bladder had not been removed, it was found to contain a purulent fluid teeming with bacteria, mostly staphylococcus albus and bacillus coli communis.

A purulent cystitis was found also when the operator squeezed out the bladder thoroughly before closing up the abdominal wound after the operation.

Operative results on twenty-one dogs with implantation of trigonum into rectum were more favorable. Specimens from several dogs were shown, one of which was killed on the thirteenth day after operation. One ureter with trigonum implanted showed a normal kidney. The other ureter implanted without vesical mucosa resulted in a violent pyelonephritis.

A number of experiments on white mice and guinea pigs were described, undertaken with a view of producing an artificial immunity to infection with B. coli, but the serum of immunized animals only clumped bacilli used for immunization. Intraperitoneal injections of other virulent cultures of B. coli proved pathogenic to other animals immunized by virulent colon bacilli obtained from other sources. The experiments are being continued. An artificially produced immunity to the group of colon bacilli appears to be the only hope of making uretero-intestinal anastomosis a feasible operation.

G. W. WEAVER, Secretary.

The Sangamon County Medical Society met in the County Court room, January 21st, at 8 p. m., J. N. Dixon, presiding. The minutes of the previous meeting were read and approved. The following names, having been approved by the Board of Directors for membership, were voted upon and elected. S. R. Hopkins, W. A. Brittin and Charles Compton.

Resolutions regarding the selection of medical interns for each of the state hospitals for the insane were read and adopted, and a copy of same ordered sent to Governor Yates, Secretary of the State Board of Public Charities and to the Secretary of the Board of Trustees of the several hospitals for the insane of the state.

The committee having in charge the securing of a permanent meeting place for the Society, were requested to confer with the G. A. R. committee regarding the use of the room that is to be set aside for their use in the County Court House, and also to investigate the possibility of starting a library in connection with same.

The bill of the State Journal Co., for printing resolutions of respect and condolence on the death of Dr. Justus Townsend, and Phillips

Bros., for printing, were approved and ordered paid.

S. E. Munson then presented his paper on malaria, the same being a review of the literature of the inoculation theory of malarial fever, referring to Crawford's paper in 1897, Kings in 1883. Patrick Manson' investigation and Ronald Ross's demonstrations of facts in connection with this important question. Of the mosquito the culix and anophelis are the most generally known, the larva of the latter being only found in natural ponds or puddles. The anopheles is a distinctly rural mosquito. The malarial bearing anopheles is less noisy than other varieties of mosquitoes, but can pierce the toughest skin.

Detailed the experiments carried on by the British government, from May to October last, in the Roman Campagna, and as a result there of the part played by the mosquito in the transmission of malaria is now being very actively investigated.

As a result of the success of the expedition, Professor Grassi has undertaken to banish malaria from Italy by the isolation of fever patients, protect dwellings in malarial districts with mosquito proof netting.

Referred to experiments of Dr. Koch's who had charge of the German malarial expeditions in New Guinea.

France also had a commission in charge of Laveran, which worked in Algeria. This commission which was appointed by the Academy of Medicine, has drawn up a circular of instructions for the use of physicians and travelers in malarial countries.

The circular reiterates that neither the water, the soil nor the air are directly the source of malarial contagion and that the mosquito does not transmit the malarial germ to its young. Questions still unsolved are, the age at which the system becomes accustomed to the malarial infection, and what type of fever determines it most absolutely, what becomes of the malarial germs inoculated in an immunized or accustomed individual.

Thayer of Baltimore says the importance to the community of insisting upon the proper treatment of all cases of malaria cannot be too strongly emphasized for an infected patient in a malarious district is a source of danger to those about him. Referred to the clinical forms of malaria or distinguished from the varieties of plasmodia quotidian, tertian, Quartan severe or irregular types. Three varieties of plasmodium malaria have been described, tertian, quartan and aestivo-autumnal parasites.

Regarding prophylaxis and treatment quinine as given by Koch, two days of quinine, then rest seven days, then two days of quinine and again seven days rest, kept up for two months has proven very efficacious. For stamping out malaria Manson suggests:

1. Begin by administering quinine for long intervals to all cases of malarial fever.

2. Cause all persons suffering with malarial fever to sleep under mosquito netting.

3. Compel all the uninfected to sleep in mosquito proof houses or beds.

4. To kill by different culicides all mosquitoes entering houses.

5. Destroy all mosquito larvæ before they reach maturity or biting stage.

6. Combination of all these methods.

In the discussion following the general opinion was that malaria was not nearly so prevalent as formerly in this locality, probably due to the improved sanitation in a large degree, and as one speaker expressed to the fact that quinine being so much cheaper, people took it for all kinds of febrile conditions, thereby preventing the development of the malarial parasite. It was known how to cure the disease long before its cause was discovered. Some did not think the mosquito the sole cause of the disease. Our speaker said it used to be called Ague or Chills and fever then malaria. The mosquito was still with us, but malaria was disappearing. It now being quite difficult to obtain a good specimen for demonstrating the malarial plasmodium.

Dr. Munson in closing expressed his appreciation of the discussion his paper had elicited said frequently the mosquito was present, but not the malarial producing variety. Anophelis was killed off because his habitat had been destroyed.

Aestivo-autumnal variety most prevalent but the malarial plasmodium was not found in the blood because the parasite is not as well developed in the peripheral circulation as in the internal organs.

Joe M. Trigg, presented a paper on a case of uraemic convulsions in pregnancy. He was called in the country to see a patient complaining of nervous symptoms. As he was leaving the house he was recalled on account of the patient having a convulsion. He began giving morphia and aconite hypodermatically, as it was all he had suitable for the case, also chloroform during the convulsion. The patient upon withdrawal of the anæsthetic would again go into convulsions. This was kept up for six hours during which period a grain and a half of morphia and a drachm of tincture of aconite were given hypodermatically. When the tendency to convulsions seemed to be controlled he gave ten grains of calomel. After this the patient seemed to progress favorably with little medication. Soon afterwards she was delivered of a dead child putrefactive, having already set in.

In the discussion of Dr. Trigg's paper, D. Buck said these cases are always serious, complications often embarrassing the situation. Veratrum was the remedial drug that had proven most successful in his hands. Dr. L. Britton thought the paper demonstrated the necessity of frequent examinations of the urine, prevention being the remedy. Though the labor should be terminated as speedily as possible.

Dr. R. D. Berry firmly believed in venesection in cases of uraemic convulsions of pregnancy, reported two cases which had occurred in his practice, did not so strongly endorse

artificial delivery. Veratrum and chloroform the remedial agents employed.

Dr Margaret Shutt, would have the patients informed so as to watch themselves and upon indications arising place themselves under medical treatment. Not only the presence of albumen should be asked for, but also diminished amount of urea.

Dr. Kreider had been impressed with the importance of stimulating the skin to its utmost activity in conjunction with securing thorough action from the bowels.

Dr. Dixon had had quite a number of those kind of cases, and seeing them at the time of the convulsions had fallen into rather a routine line of treatment. If the patient was plethoric he would bleed freely. If possible terminate the labor quickly. Secure good free action of the bowels and skin. Always examine the urine every two weeks when cases are seen early.

Dr. Trigg in closing remarked that his case occurred eight miles in the country, he had only his usual remedies and consequently had to rely on what he had with him.

LEGISLATIVE COMMITTEE.

The following is a list of those who have remitted one dollar (\$1.00) each for the use of the Legislative Committee. The Chairman of that Committee desires to take this plan of acknowledging the receipt and to thank the members for their support. This is supplementary to the list published in the January Journal and includes receipts to Jan. 12, 1901. Other remittances will be acknowledged in future issues of the Journal.

Those marked with asterick are already members of the Illinois State Medical Society.

Adams, Chas., Central Music Hall, Chicago.

Adams, A. L., Jacksonville.

Anderson, Martha, Moline.

*Anthony, Frank, Sterling.

Bass, G. E., 9901 Ewing ave., Chicago.

*Baker, E. F., Jacksonville.

*Bartlett, A. T., Virden.

*Butterfield, E. H., Ottawa.

*Bernhardi, Carl., Rock Island.

*Brittin, A. L., Athens.

Bradley, G. W., Waverly.

Bourland, I. N., Equality.

Broell, Albert C., 131 Freemont st., Chicago.

Burlingame, D. E., Elgin.

Butz, John E. P., Pontiac.

Bigelow, Frederick E., 4259 Cottage Grove ave., Chicago.

*Brayshaw, Joseph, Berlin.

*Buck, H. B., Springfield.

*Black, Carl E., Jacksonville.

*Brown, E. J., Decatur.

*Barlow, C., Robinson.

Clark, E. E., Danville.

*Carroll, C. L., Taylorville.

*Cook, Wm. H., Coffeen.

*Chenowith, J. W., Chio, Cal.

*Crane, F. M., Pittsfield.

*Cassidy, Geo. P., Shawneetown.

Casburn, R. L., Carthage.

Catlin, E. P., Rockford.

*Crouch, E. L., Jacksonville.

Cochran, W. A., Danville.

*Center, Chas. D., Quincy.

Cooley, E. B., Pilot.

Dickerson, Frances, 70 State st., Chicago.

Doherty, David, 143 E North ave., Chicago.

*Doepfner, Karl, Chicago.

Dal, John W., 499 N Roby st., Chicago.

*Dalton, W. B., Scottsville.

*Danforth, I. N., Chicago.

*Degraff, E. B., Rushville.

Dombrowski, P., Peoria.

*Ensign, Wm. O., Rutland.

*Egan, J. A., Springfield.

Edwards, J. W., Mendota.

*Finger, G. W., Pana.

Faber, Paul J., State and Madison sts., Chicago.

Foster, T. R., Hospital.

Firebaugh, I. L., Robinson.

*Fiegenbaum, E. W., Edwardsville.

Gahagan, H. J., Elgin.

Gilbert, Elon G., Geneseo.

*Green, Albert, Rockford.

Gault, H. L., Sparta.

Grigson, R. J., Augusta.

*Gillespie, T. W., Lostant.

Gobble, H. W., Greenfield.

*Godfrey, Henry T., Galena.

*Goldspohn, A., Chicago.

*Hardy, H. T., Kaneville.

*Hand, H. W., Whitehall.

*Herzog, M., Chicago.

*Horine, T. A., Brighton.

Hoffman, C. P., Sadorus.

Hollinger, J., 103 Randolph st., Chicago.

*Harvey, L. J., Griggsville.

*Harter, I. F., Stronghurst.

*Hagler, E. E., Springfield.

*Hutton, W., Elizabeth.

*Hyde, J. N., Chicago.

*Haines G. M., Durand.

*Haskell, W. A., Alton.

*Hurst, S. T., Greenville.

*Ingals, E. Fletcher, Chicago.

*Johnson, Frank S., Chicago.

*Johnson, C. C., Galesburg.

*Kreider, Geo. N., Springfield.

*Kelley, J. W., Springfield.

*Keller, W., Princeton.

Kaczorowski, J. P., 8401 Superior ave., Chicago

*Lee, A. M., Carbondale.

Lacy, Hattie E., 70 State st., Chicago.

*Landis, B. F., Tiskilwa.

Loew, Alex., 3929 Prairie ave., Chicago.

*Lowrie, Jas. L., Lincoln.

Lee, J. H., 114 N. Center st., Chicago.

Laughlin, C. O., Paris.

*MacMartin, D. R., Chicago.

*McClain, B. T., Atwood.

*McArthur, L. L., Chicago.

*McCullough, John R., Chicago.

*McIntosh, Jesse H., DeWitt.

*McMurray, R. J., Linn.

McIlvaine, Thos. M., Peoria.
 Marshall, H. L., Stronghurst.
 Morrill, E. F., 1725 W. 12th st., Chicago.
 *Morgan, W. E., Chicago.
 *Montgomery, F. H., Chicago.
 *Mackey, A. N., Aledo.
 McComas, G. W., New Canton.
 *Milligan, Geo. W., Edinburg.
 *Miner, Ellen, Champaign.
 *Nelson, C. S., Springfield.
 *Newman, Henry P., Chicago.
 *Nickerson, L. H. A., Quincy.
 *Noble, Wm. L., Chicago.
 *Ochsner, E. H., Chicago.
 *Oughton, Chas. M., Chicago.
 *Owens, John E., Chicago.
 Oswald, Julius W., Chicago.
 Osborne, Grace, 100 State st., Chicago.
 Oliver, E. W., Wenona.
 *Postle, J. M., Hinkley.
 *Prather, J. E., Glasgow.
 Porter, F. D., 1594 N Halsted st., Chicago.
 *Pitner, F. R., Clay City.
 *Patrick, Hugh T., Chicago.
 *Price, C. E., Eaton.
 Parkinson, Daniel B., Bloomington.
 Peterson, H. T., 93 E. 18th st., Chicago.
 Quinlan, W. W., 503 Belden ave., Chicago.
 Reid, L. W., DeLand.
 *Root, Eliza H., Chicago.
 *Rumpf, Wm. H., Chicago.
 Roberts, D. D. Paris.
 Roberts, Roy, Brooklyn.
 Ragsdale, A. C., Metropolis.
 *Redwine, J. W., Whitehall.
 *Ragin, G. T., Neoga.
 Reagin, C. G., DuQuoin.
 Rathbun, F. D., New Windsor.
 *Rhodes, John E., Chicago.
 Reedy, E. S., Bloomington.
 *Shallenberger, W. E., Canton.
 *Staples, M. W., Grove City.
 *Staples, M. W., Grove City.
 Stoll, J. J., 514 W. 12th st., Chicago.
 *Stealy, J. H., Freeport.
 Shoey, I., Lebanon.
 *Simmons, Geo. H., Chicago.
 *Studer, Joseph, Peoria.
 *Shipp, F. J., Springfield.
 Slater, O. M., Garrett.
 Schowengerdt, W. E., Champaign.
 Thompson, L., Utica.
 Tivnen, Richard J., 302 Garfield boul., Chicago.
 Trovillion, C. E., Metropolis.
 *True, Chas., Kankakee.
 *Thompson, L. G., Lacon.
 Thometz, J. J., 999 W. 12th st., Chicago.
 Utley, J. H., Springfield.
 *Uran, Benj. F., Kankakee.
 *VanHook, Weller, Chicago.
 Welcker, P. R., 626 La Salle st., Chicago.
 *Wilder, Wm. H., Chicago.
 *Walker, S. R., Chebanse.
 *Walsh, W. E., Morris.
 Winstead, M. L., Wetaug, Pulaski Co.
 *Wagner, Carl, Chicago.
 Wanzlick, Wm., 241 Dearborn ave., Chicago.

*Weidner, Robert, Dolton.
 Walters, J. C., Cantral.
 *White, J. L., Bloomington.
 *Weber, Sam'l L., Chicago.
 *Weis, E. W., Ottawa.
 Walton, T. E., Danville.
 *Webster, Geo. W., Chicago. (\$5.00).
 *Whitten, H. H., Peoria.
 Yolton, J. L., Bloomington.
 Ward, M. T., Toulon.

CORRIGENDA.

The name of Dr. E. P. Gibson of Hoosier, Ill., (Clay County M. S.) has been omitted. Is a member of the State Society.

Add the name of Dr. J. H. Fulgham of Lebanon, Ill., to the list of the St. Clair County Medical Society. He is also a member of the State Society. Also add the following names to the St. Clair County Medical Society list: Dr. I. H. Hewitt of Summerfield, Ill., and Dr. A. Berger of Lebanon, Ill.

In the list of the Clinton County Medical Society the name Banes, J. A., Germantown, should be Bauer, Jno. A., Germantown, and Mowney, James, Breese, should be J. J. Morony, Breese, Ill.

In the McLean County Medical Society list the name of Dr. Rhoda G. Yolton and Dr. J. L. Yolton of Bloomington, Ill., have been omitted.

Dr. John Wright's address should be Clinton, Ill., instead of San Jose, Cal. Life member of the State Society.

Add to De Witt County list—

Bullard, C., Mt. Pulaski.

Davis, V., Wapella.

*Kirby, W. H., Chestnut.

The Chicago Academy of Medicine has no officers, but five members of the Board of Directors. The Secretary of the Directors, J. G. Kiernan is ex-officio Secretary of the Academy.

Add to Will County list—

*Henry, R. H., Peotone.

MEMBERS OF CITY AND DISTRICT SOCIETIES.

This is a continuation of the list of members of local societies throughout the state.

These lists are published just as obtained from the local society secretaries by the committee on medical legislation. Dr. C. E. Black, of Jacksonville, wishes it understood that he assumes no responsibility for the mistakes which may appear. We trust that the publication of these lists will lead to a revision of all local society lists and would request every one noticing errors to report the necessary correction to Secretary E. W. Weis, of Ottawa at once. Those names marked with an asterisk are members of the State Society.

ALTON MEDICAL SOCIETY.

W. A. Haskell, President.....Alton.
P. W. Beckman, Secretary.....Alton.

Number of members in Society, 11.

Number of members in State Society, 4.

LIST OF MEMBERS.

Beckman, P. W.	*Lemen, E. C.
Bowman, L. M.	Lemen, H. R.
*Fisher, W.	Taphorn, G.
Fiegenbaum, J.	*Wilkinson, G. E.
Halliburton, W.	Yerkes, T. P.
*Haskell, W. A.	

DECATUR MEDICAL SOCIETY.

Meets monthly.

H. C. Jones, President.....Decatur.
John T. Miller, Secretary.....Decatur.

Number of members, 50.

Number of members in State Society, 20.

LIST OF MEMBERS.

All members reside in Decatur unless another address is given.

Allison, B. A.
Anderson, F. M.
Barnes, Ira N.
Barnes, Lynn M.
*Barnes, Wm.
Bell, Wm. H.
*Bowers, W. C.
*Bridges, W. T., Stonington.
*Bratz, F. D., Mowequa.
*Brown, E. J.
Bumstead, Chas., Monticello.
Bumstead, S. J.
*Chenoweth, Cass.
Chenoweth, Will.
*Chenoweth, W. J.
*Coe, C. W., Stonington.
Collins, A. L.
Collins, N. P.
Connelly, J. L.
Davidson, W. P., La Place.
*Dixon, Wm. A.
Drew, A. M.
Eddy, J. H.
Grimes, Ellen F.
*Hoover, W. K., Lovington.
Hostettler, Wm. B.
*Jones, Herbert, C.
Kenton, J. I.
King, J. S.
Kyner, D. T., Blue Mound.
*Loesch, G. E., Lake City.
Lonergan, M. V.
Maienthal, B. L.
*May, S. R., Mount Zion.
*McClelland, S. E.
*Melton, W. A. Jr., Warrensburg.
Meriweather, Tyler.
*Miller, J. T.
*Morgan, E. A.
Myers, N. D.

*Parrish, M. P.
Patterson, W. T., Casner.
Pollock, D. M.
Randall, J. N.
*Sanders, J. W.
Smith, C. B., Boody.
Stoner, Fred, Harristown.
*Wilhelmy, A. F.
*Wood, C. Martin.
*Wood, W. C.

EAST ST. LOUIS MEDICAL SOCIETY.

Organized February, 1897.

H. C. Fairbrother, President.....E. St. Louis.
W. S. Wiatt, Secretary.....E. St. Louis.

Number of members in Society

Number of members in State Society.

All members reside in E. St. Louis, unless other address is given.

LIST OF MEMBERS.

Adelserger, J. C., Waterloo.
Carr, M. S.
*Corr, A. C.
Culp, E. E.
*DeCoursey, J. O.
DeHaan, H. J.
Doyle, M. R.
Dwyer, J. W. B.
*Fairbrother, H. C.
*Grayson, W. H., Venice.
Hansen, H.
Hansing, A. E.
Lillie, C. W.
Loeb, H. W.
McGaffigan, A. J.
*McLean, W. H.
Moeller, Chas.
*Rendleman, J. M.
Scott, J. W., Venice.
Stack, John.
State, J. E.
Stewart, W. D.
Taphorn, H.
Thompson, Eugene.
*Wilhelmy, C. F.
Wiatt, W. E.
Wiatt, W. S.
Whitmer, C. F.
Wiggins, J. L.

JACKSONVILLE MEDICAL CLUB.

Meets every two weeks.

P. C. Thompson, President.....Jacksonville.
D. W. Reid, Secretary.....Jacksonville.

Number of members, 14.

Number of members in State Society, 11.

LIST OF MEMBERS.

*Baker, E. F.	*Hairgrove, J. W.
*Black, C. E.	*McLaughlin, W. K.
Black, G. V., Chicago.	*Norbury, F. P.
Bowe, Edward.	*Pitner, T. J.
*Campbell, H. C.	Reid, David W.
*Cole, W. C.	*Thompson, P. C.
*Frost, L. A.	Wakely, T. A.

OTTAWA CITY MEDICAL SOCIETY.

Meets monthly.

J. C. Hatheway, President.....Ottawa.

Wm. A. Pike, Secretary.....Ottawa.

Number of members, 14.

Number of members in State Society, 6.

LIST OF MEMBERS.

*Bergeson, J. R. Herzog, Albert
 *Burrows, T. W. Milligan, Fitch
 *Butterfield, E. H. *Pettit, J. W.
 *Downey, B. J. Pike, Wm. A.
 Fehr, Henry. *Provines, C. B.
 Hatheway, E. P. Roberts, A. J.
 Hatheway, J. C. *Weis, E. W.

PEORIA CITY MEDICAL SOCIETY.

E. M. Sutton, President.....Peoria.

E. M. Eckard, Secretary.....Peoria.

Number of members, 84.

Number of members in State Society, 22.

Number of regular physicians in county, 133.

All members reside in Peoria unless another address is given.

LIST OF MEMBERS.

*Allison, W. R.
 Baldwin, Frank.
 *Baker, R. W.
 Bellinger, W. H.
 *Boal, Robert, Lacon.
 Bradley, E. H.
 Bradley, R. D.
 *Brobst, C. H.
 Brown, J. S.
 Chapman, Dr., Deer Creek.
 *Collins, Clifford U.
 Conibear, J. H., Morton.
 *Conibear, W. H., Morton.
 Coon, Bethnia, Hanna City.
 Corcoran, A. S.
 Davisson, A. W.
 Dombrowski, John P.
 Dombrowski, P.
 Du Mars, R. A.
 *Eckard, E. M.
 *Finnell, J. J. L.
 Foreman, L. D.
 Gerzema, F.
 Giles, W. N.
 Hanna, R. A.
 Hartman, C. D.
 Hasson, E. D.
 *Hensley, J. W.
 *Hoit, J. D. C., Elmwood.
 *Horwitz, S.
 Howes, Mrs. I. F.
 Johannes, A.
 *Kanne, A. J.
 Keith, A. N.
 *Kerr, R. A.
 Kirkpatrick, A. B.
 Koos, M. L.
 Kors, Dr.
 Krieger, Lewis N.
 Limmer, Geo. L.
 *Lucas, Emma J.
 Lucas, Frank B.
 Mansfield, Dr., Washington.
 *Marcy, M. S.

Martin, Dr., Morton.
 McFadden, L. A.
 McFall, C. E., E. Peoria.
 McIlvaine, T. M.
 McMahan, J. P.
 Miller, J. S.
 Murphy, J.

*Niergarth, W., Pekin.
 Norville, T. B.
 Paine, J. C.
 Parker, J. W.
 Plummer, A.
 Plummer, J. S.
 Roberts, J. C.
 *Roskoten, O. J.
 Schoaff, H. A.
 *Sedgwick, H. M.
 Shaw, Viola.
 Skelly, John I., Pekin.
 *Sloan, W. T.
 Spalding, L. H.
 Steele, H.
 *Stephenson, B. M.
 *Stewart, J. T.
 Studer, E. B.
 *Studer, Jos.
 *Sutton, E. M.
 Swartz, Dr.
 *Thomas, C. D.
 Wallace, Jeanette.
 Waln, J. R.
 Weis, Ezra.
 Whiting, M.
 *Whitten, H. H.
 *Will, O. B.
 Willis, W. H.
 Wilson, W. R. A.
 Wyatt, T., Eureka.
 Zeller, Frederick.
 Zeller, G. A.
 Zook, Earl W., Dunlap.

TWIN CITY (CHAMPAIGN AND URBANA)
CLINICAL ASSOCIATION.

Meets second and fourth Wednesday of each month.

H. C. Howard, President.....Champaign.
James H. Finch, Secretary.....Champaign.URBANA SOCIETY OF PHYSICIANS AND
SURGEONS.

Meets first Monday of each month.

Chas. A. Nichols, President.... Urbana.
E. S. Smith, Secretary.....Urbana.

BRAINARD DISTRICT MEDICAL SOCIETY.

Meets fourth Thursday of January, April, July and October.

J. T. Lowrie, President.....Lincoln.
Katherine Miller, Secretary.....Lincoln.

Number of members, 77.

Number of members in State Society, 56.

LIST OF MEMBERS.

*Adams, A. L., Jacksonville.
 *Barger, R. N., Hopedale.
 *Barnett, J. A., Lincoln.
 *Bartlett, Edward P., Springfield.

Bird, A. M., Mason City.
 *Black, C. E., Jacksonville.
 *Bowcock, C. M., Springfield.
 *Brittin, A. L., Athens.
 *Brown, H. B., Lincoln.
 *Burnham, A. F., Jacksonville.
 Burns, W. F., Oakford.
 *Campbell, A. E., Clinton.
 *Cargill, C. W., Mason City.
 *Coppell, F. M., Havana.
 *Crouch, E. L., Jacksonville.
 Damon, W. E., Cantrall.
 *Dieffenbacher, P. L., Havana.
 *Eldridge, F. P., Greenvew.
 Fisher, J. C., Petersburg.
 Fockler, G. W., Delavan.
 Glenn, J. A., Ashland.
 Guttery, W. V., Middletown.
 *Hagler, E. E., Springfield.
 *Hairgrove, J. W., Jacksonville.
 *Halbert, W. A., Salisbury.
 Hamil, Chas., Greenvew.
 *Hill, H. C., Springfield.
 Hill, T. C., Sweetwater.
 *Hole, B. W., Talula.
 *Holmes, N., Delavan.
 *Hopping, O. P., Havana.
 *Hurst, S. T., Greenvew.
 Jacobs, R. H., Oakford.
 *Jennings, C. A., Delevan.
 *Kelly, J. W., Springfield.
 *Kennelly, J. S., Easton.
 *Kirby, W. H., Chestnut.
 *Kreider, Geo. N., Springfield.
 Lee, Maskell, Atlanta.
 *Leeds, L. L., Lincoln.
 *Lowrie, J. T., Lincoln.
 *Miller, Katherine, Lincoln.
 *McLaughlin, W. K., Jacksonville.
 *Mudd, W. A., Athens.
 *Munson, S. E., Springfield.
 *Murphy, T. C., Manito.
 *Newcomer, Irving, Petersburg.
 *Newcomer, J. W., Petersburg.
 Nolan, E. C., Mt. Pulaski.
 *Norbury, F. P., Jacksonville.
 Paul, E. W., Forest City.
 Paullin, E. L., Springfield.
 *Pitner, T. J., Jacksonville.
 *Prince, A. E., Springfield.
 *Prince, John A., Springfield.
 Reed, Chas. C., Lincoln.
 *Ryan, Walter, Springfield.
 Sargent, A. M., Lincoln.
 *Servoss, A. G., Havana.
 *Shipp, F. J., Springfield.
 *Smith, H. W., Roodhouse.
 *Smith, J. W., Bloomington.
 *Smith, W. H. C., Godfrey.
 *Spear, J. W., Mason City.
 *Southwick, G. E., Cotton Hill.
 *Stephenson, B. M., Peoria.
 Stone, C. A., Mason City.
 *Taylor, L. C., Springfield.
 *Tyler, W. R., San Jose.
 Vawter, F. L., Topeka.
 Walker, W. P., Mason City.
 Walters, C. H., Springfield.
 Walters, J. C., Cantrall.
 *Whitley, J. D., Petersburg.

*Wilson, R. M., Lincoln.
 Woodard, J. F., Lincoln.

AESCULAPIAN SOCIETY OF THE WABASH VALLEY.

Meets in May and October. Next meeting at Neoga.

Number of members, 69.

Number of members in State Society, 14.

LIST OF MEMBERS.

*Allen, Elmer S., Arcola.
 Baker, J. W., Melrose.
 *Barlow, C., Robinson.
 Baum, Z. T., Paris.
 *Baughman, J. A., Neoga.
 Bradley, R. H., Marshall.
 Brenton, W., Tuscola.
 Brunk, C. H., Windsor.
 Buchanan, W. A., Paris.
 Carrico, P. O., Ashmore.
 Cooley, E. M., Oblong.
 Davis, F. M., Paris.
 Doutricks, H., Grandview.
 Eaton, W., Hutsonville.
 *Eidson, H. A., Willow Hill.
 Epperson, J. C., Kansas.
 Evinger, J. W., Ferrell.
 Ferguson, W. M., Nevins.
 *French, Z. D., Lawrenceville.
 Fry, Chas. B., Mattoon.
 Gray, S. R., Chrisman.
 *Hall, Joseph, Westfield.
 Haslet, H. W., Dolson.
 Hite, J. E., Kansas.
 *Hobart J. R., Ashmore.
 Hoff, W. H., Paris.
 Hood, T. C., Dana.
 Jennings, J. F., Scotland.
 *Jones, W. S., Redmond.
 Kerrick, C. L., Chrisman.
 Kerrick, H. C., Brocton.
 Laughlin, C. S., Paris.
 Laughlin, E. O., Paris.
 Lindsey, N. F., Birds Station.
 Little, H. A., Linton.
 Lydick, F. D., Paris.
 Maxwell, J. H., Newton.
 *McCord, T. C., Paris.
 *McKenna, H., Paris.
 Miller, A. J., Paris.
 Mitchell, O., Marshall.
 *Montgomery, J. T., Charleston.
 Morgan, W. D., Rardin.
 Mosely, A. K., Grandview.
 Musselman, J. T., Paris.
 Parish, B. L., Mattoon.
 Patton, W. R., Charleston.
 Peak, W. J., Oakland.
 Phifer, J. N., Shumway.
 Polk, John L., Arcola.
 Prewitt, G. W., Marshall.
 Rafferty, T. N., Robinson.
 *Ragin, G. T., Neoga.
 *Reat, James L., Tuscola.
 *Rice, Ed. E., Allison.
 Robertson, A. T., Ashmore.
 Roberts, D. D., Redmon.
 Rowe, Mark, Paris.

Ryerson, C. D., York.
 Silverthorn, L. L., Charleston.
 Slaught, J. P., Logan.
 Steele, A. T., Charleston.
 Ten Broeck, Wm. H., Paris.
 *Walker, J. B., Effingham.
 *Webb, C. C., Charleston.
 *Weir, L. J., West York.
 *Wilhoit, D. L., Martinsville.
 Wilkin, J. M., Martinville.
 Williams, T. W., Casey.
 Young, J. R., Paris.

DISTRICT MEDICAL SOCIETY OF CENTRAL ILLINOIS.

Meets last Tuesday in April and October.

J. N. Nelms, President.....Taylorville.

C. R. Spicer, Secretary.....Taylorville.

Number of members, 138.

Number of members in State Society, 74.

LIST OF MEMBERS.

Axline, C. E., Woodburn.
 *Babcock, O. B., Springfield.
 Balt, G. S., Herrick.
 Barcroft, B. V., Litchfield.
 Barnes, I. N., Decatur.
 Barnes, Lynn, Decatur.
 *Barnes, Wm., Decatur.
 Beach, R. S., Vandalia.
 *Bartlett, A. T., Virden.
 *Black, C. E., Jacksonville.
 Blackwelder, J. F., Litchfield.
 *Boggs, W. R., Macon.
 *Bowcock, C. M., Springfield.
 Brant, I. L., Tower Hill.
 *Bratz, F. D., Mowequa.
 *Bridges, W. F., Stonington.
 *Brown, E. J., Decatur.
 *Buck, H. B., Springfield.
 Burwell, E. A., Nokomis.
 *Carroll, C. L., Taylorville.
 *Catherwood, T. L., Shelbyville.
 *Chenoweth, Cassidy, Decatur.
 *Clark, Sumner, Effingham.
 *Clotfelter, G. A., Hillsboro.
 Collins, A. L., Decatur.
 Collins, Naomi P., Decatur.
 *Colt, J. D., Litchfield.
 *Connor, J. J., Pana.
 *Cook, W. H., Coffeen.
 Corley, H. S., Tower Hill.
 Cornell, D. K., Taylorville.
 Danford, R. C., Pana.
 Deming, H. H., cor. 44th and Greenwood ave., Chicago.
 *Dickerson, J. H., Taylorville.
 Dobson, J. W., Arthur.
 Dorman, W. L., Vanderville.
 *Douglas, W. W., Hillsboro.
 Doyle, M. R., E. St. Louis.
 Easley, J. T., Greenville.
 *Eberspacher, F. J., Pana.
 Eddy, J. H., Decatur.
 *Eddy, W. J., Shelbyville.
 *Egan, J. A., Springfield.
 Farmer, M. H., Chicago.
 *Fink, I. W., Hillsboro.
 Frazier, Wm., Vanderville.
 *Fringer, G. W., Pana.
 *Fringer, W. R., Rockford.
 Fleming, W. L., Shelbyville.
 *Geddy, W. H., Ohlman.
 *Gordon, J. H., Pocahontas.
 Gordon, W. E., Old Ripley.
 *Gordon, W. P., Carlyle.
 *Griffith, B. B., Springfield.
 Guthrie, John F., Beecher City.
 *Hagler, E. E., Springfield.
 Huff, G. W., Findley.
 Haines, Baxter, Hurricane.
 Haines, Moses, Bingham.
 Harvey, J. G., Blue Mound.
 Hicks, W. F., Raymond.
 Hillsabeck, W. F., Windsor.
 Hood, H. H., Litchfield.
 Hosteller, W. B., Decatur.
 Hoyt, Jessie M., Fillmore.
 *Huber, J., Pana.
 *Jones, H. C., Decatur.
 Kerr, A. L., Sullivan.
 *Kerr, E. D., Brunswick.
 *King, J. Stebbins, Decatur.
 *Kreider, G. N., Springfield.
 Littlejohn, L. C., Oconee.
 *Livesy, T. N., Patoka.
 Lockhart, C. H., Witt.
 Marshall, N. Scott, Centralia.
 Martin, Geo. A., Brownestown.
 *May, S. B., Mt. Zion.
 McCambridge, P. H., Stewartson.
 McDonald, J. T., Taylorville.
 *McMennamy, B. F., Bethany.
 *Melton, W. A., Warrensburg.
 *Milligan, G. W., Edinburg.
 Milligan, Josephine, Jacksonville.
 Miller, Andrew, Sullivan.
 Miller, B. F., Palmer.
 *Miller, J. H., Pana.
 *Moffitt, W. T., Blue Mound.
 *Morgan, E. A., Decatur.
 *Morton, J. S., Vernon.
 *Moyer, M. L., Hillsboro.
 *Munson, S. E., Springfield.
 *Murfin, J. W., Vernon.
 *Murfin, W. W., Patoka.
 Myers, N. D., Decatur.
 *Nelms, J. N., Taylorville.
 Newkirk, G. W., Owanecco.
 Nicholson, J. T., Macon.
 *Norbury, F. P., Jacksonville.
 *Oyler, P. H., Mt. Pulaski.
 Penick, N. S., Springfield.
 *Pitner, T. J., Jacksonville.
 *Pogue, Joseph, Edwardsville.
 Poindexter, E. P., Greenville.
 Poindexter, J. S., Waburn.
 *Porter, D. W., Blue Mound.
 Prewitt, D. G., Vandalia.
 *Prince, A. E., Springfield.
 *Prince, John A., Springfield.
 Randall, J. N., Decatur.
 Riddle, H. R., Mechanicsburg.
 *Rivard, G. J., Assumption.
 *Rockey, A. P., Assumption.
 *Ryan, Walter, Springfield.
 Sample, M. F., 1303 Belmont ave., Chicago.
 Sawyer, Amos, Hillsboro.
 *Short, W. T., Grove City.
 Sihler, G. A., Litchfield.
 Simpson, J. P., Palmer.
 *Small, A. R., 3300 State st., Chicago.

*Southwick, Geo. A., Beamington.
 *Sparling, Wm. C., Mowequa.
 *Spicer, C. R., Taylorville.
 *Staff, E. P., Ramsey.
 *Staples, M. W., Grove City.
 *Strain, H. S., Nokomis.
 *Taylor, L. C., Springfield.
 *Thompson, Theo., Shelbyville.
 Tuttle, C. F., Raymond.
 *Tuttle, H. H., Springfield.
 *Vance, H. N., Bement.
 Welch, C., Ramsey.
 Wheeler, E. N., Latham.
 *Whitten, T. J., Nokomis.
 Williams, D. R., Pochahontas.
 Wilson, G. S., Nokomis.
 Wilson, J. C., Donnellson.
 *Wilson, W. G., Shelbyville.
 *Wright, N. K., Taylorville.

FOX RIVER VALLEY MEDICAL ASSOCIATION.

Meets at Elgin in May and at Aurora in Nov.
 Catherine B. Slater, President.....Aurora.
 H. J. Gahagan, Secretary.....Elgin.

Number of members, 52.

Number of members in State Society, 12.

LIST OF MEMBERS.

Abbott, E. H., Elgin.
 Allen, Geo. F., Aurora.
 Anderson, E. V., Woodstock.
 *Bartells, H. F. W., Bensenville.
 Bates, Fred. H., Elmhurst.
 Bell, J. F., Elgin.
 Bennett, R. F., Elgin.
 Blackman, F. H., Genoa.
 Blackman, J. C., Genoa.
 Brown, S. P., Elgin.
 Burlingame, D. E., Elgin.
 Calhoun, W. J., St. Charles.
 Chappel, O. A., Elgin.
 Cleaveland, E. F. X., Dundee.
 Curtis, R. M., Union.
 *Fitts, A. A., Batavia.
 Foote, L. F., Cherry Valley.
 Franz, C. H., Aurora.
 Fullam, M. E., Aurora.
 Gahagan, H. J., Elgin.
 Gillett, S. C., Aurora.
 *Hardy, H. T., Kaneville.
 Harris, B.,
 Hawley, C. W.
 Hitchcock, C. H., Aurora.
 *Jenks, D. S., Plano.
 *Jenks, F. H., Elgin.
 Knight, M. C., Aurora.
 La Baum, S. H., Aurora.
 La Due, B. E., La Grange.
 *McClanahan, J. M., Kirkwood.
 McCormack, E. A., Elgin.
 Meiklejohn, Julia, Elgin.
 *Nash, F. W., Big Rock.
 *Nason, W. A., Algonquin.
 Nutt, S. L., Marengo.
 Ohls, H. E., Hinsdale.
 *Postle, J. M., Hinckley.
 Pratt, H. L., Elgin.
 Pratt, J. A., Aurora.

Richardson, H. W., Marengo.
 *Robbins, M. M., Aurora.
 Rutledge, J. A., Springertown.
 Schneider, J. E., Elgin.
 Selkirk, James, Aurora.
 Slater, C. B., Aurora.
 Snyder, John L.,
 Tapper, J. G., Elgin.
 Teft, S. E., Elgin.
 *Westgate, L. E., Sycamore.
 *Windette, P. A., Aurora.
 Windmueller, E., Woodstock.

GALVA DISTRICT MEDICAL SOCIETY.

Meets annually first Tuesday in May at Galva.
 W. A. Grove, President.....Galva.
 C. W. Hall, Secretary.....Kewanee.

Number of members, 33.

Number of members in State Society, 7.

LIST OF MEMBERS.

Bryan, W. S., Cambridge.
 *Carter, Chas. W., Aledo.
 Chrisman, W. D., La Fayette.
 Cole, W. H., Kewanee.
 Cowles, Geo. H., Woodhull.
 Gray, W. B., Altona.
 Grove, W. A., Galva.
 Guthrie, F. A., Aledo.
 *Hall, C. W., Kewanee.
 Hall, W. T., Toulon.
 *Heflin, H. N., Kewanee.
 Hohman, W. D., Kewanee.
 Hunter, C. W., Altona.
 Kirkland, J. A., Cambridge.
 *Lowe, F. O., Kewanee.
 Mackey, A. N., Aledo.
 *McClenahan, W. S., Woodhull.
 *Melaik, H. B., Kewanee.
 Mork, E. A., Cambridge.
 Noren, G. P., Kewanee.
 *Oliver, J. H., Kewanee.
 Packer, E., Toulon.
 Perkins, S. R., Wyoming.
 Pierce, A. M., Wyoming.
 Rathburn, F. D., New Windsor.
 Smiley, F. M., Kewanee.
 Stewart, H. J., Kewanee.
 Swanson, J. E., Swedona.
 Thompson, Sylvester, Galva.
 Vannice, J. F., Bishop Hill.
 Wallace, J. M., Aledo.
 Ward, M. T., Toulon.
 Waterous, H. W., Galva.

IOWA AND ILLINOIS CENTRAL DISTRICT ASSOCIATION.

Meets Quarterly.

C. C. Carter, President.....Rock Island.
 G. E. Decker, Secretary.....Davenport, Iowa.

Number of members, 40.

Number of members in State Society, 11.

LIST OF MEMBERS.

Anderson, Martha, Moline.
 Asay, J. E., Rock Island.
 Baith, G. E., Rock Island.
 *Beal, A. M., Moline.
 Beal, A. R., Watertown.

- Beam, W. S., Moline.
 *Bernhardi, Carl, Rock Island.
 Black, W. S., Port Byron.
 Comegys, J. P., Rock Island.
 *Carter, C. C., Rock Island.
 Cozinn, J. R., Rock Island.
 Craig, G. G. Sr., Rock Island.
 *Craig, G. G. Jr., Rock Island.
 *De Silva, Jos., Rock Island.
 Decker, G. E., Davenport, Iowa.
 *Dunn, L. D., Moline.
 *Edlin, E. A., Moline.
 *Eyster, G. L., Rock Island.
 First, F. H., Rock Island.
 Foster, C. F., Rock Island.
 Gilbert, E. B., Geneseo.
 Hall, B. F., Rock Island.
 Hall, S. B., Rock Island.
 Heryett, G. A., Milan.
 *Hollowbush, J. R., Rock Island.
 Hunter, Warren, Hampton.
 Johns, John G., Moline.
 Kerns, E. L., Moline.
 Locker, O. W., Hillsdale.
 Lutwig, W. H., Rock Island.
 Meyer, S. C. J., Moline.
 Meyers, W. F., Coal Valley.
 Moore, L. C., Reynolds.
 *Morgan, J. W., Moline.
 *Sala, E. M., Rock Island.
 Sloan, W. K., Moline.
 Swensson, J. G., Moline.
 Whiteside, C. E., Moline.
 Wiggins, G. A., Milan.
 Wright, Emily, Rock Island.
- Couley, D. S., Streator.
 Cowan, J. M., Hennepin.
 Cunningham, T. N., Princeton.
 Cushman, R. A., Sublette.
 Daly, V. M., Pontiac.
 Davis, C. E., Peoria.
 *Dicus, Geo. A., Streator.
 Downey, Wm. L., Wenona.
 Eberlein, F. W., Benson.
 *Ensign, W. O., Rutland.
 Evans, J. W., Varna.
 Evans, P. M., Rutland.
 Everett, E. S., Lacon.
 Felker, N. F., Amboy.
 Fenton, T. C., Streator.
 Ferry, L. A., Geneco.
 Field, A. E., Plattville.
 Finley, E. L., Streator.
 *Fogg, C. E., Wenona.
 Frazier, T. R., Yorkville.
 *Garrison, H. E., Dixon.
 Gaylord, Edwin, Pontiac.
 Gillespie, T. W., Lostant.
 Goodheart, G. W., Lexington.
 Gregory, J. A., Long Point.
 *Grim, Adam, Franklin Grove.
 Harding, B. A., Blackstone.
 Hathorn, J. E., Arlington.
 Head, G. P., Sheffield.
 Hill, Wm., Bloomington.
 Hoffman, J. R., Chicago.
 Hoopman, S. V. G., Roanoke.
 Howard, W. E., Kasbeer.
 *Hunt, C. C., Dixon.
 Hunt, F. R., Austin.
 Hurst, N. N., Streator.
 Jeffries, O. H. P., Magnolia.
 Jennings, M. B., Streator.
 Jones, C. D., Leland.
 Jones, T. W., Cornell.
 *Jump, D. W., Plainfield.
 Kehoe, Jas., Ohio.
 *Keefer, J. F., Sterling.
 *Keefer, J. R., Sterling.
 Kinnear, A. H., Metamora.
 *Knoblauch, J. L., Metamora.
 Mansfield, W. A., Metamora.
 *Marshall, J. A., Pontiac.
 Martin, B. A., Lacon.
 McQuaide, T. L., Dana.
 Mendenhall, A. L., Garfield.
 *Middleton, A. B., Pontiac.
 Miller, R. B., Millington.
 Moore, Hattie M., Streator.
 Newkirk, Garrett, Wenona.
 Oliver, E. W., Wenona.
 Oliver, W. H., La Salle.
 *O'Malley, W. H., Kinsman.
 Orelup, C. E., Streator.
 Otis, N. M., Fairbury.
 Pearson, J. J., Pontiac.
 *Perisho, E. E., Ancona.
 *Pettit, J. W., Ottawa.
 Ramsey, G. W., Magnolia.
 Reeder, I. H., Lacon.
 Rensburg, J. L., Lamville.
 Rich, X. E., Wenona.
 Richardson, A. N., Ohio.
 Rohrabough, E. E., Watseka.
 *Ross, John, Pontiac.
 Ryburn, J. S., Ottawa.

NORTH CENTRAL ILLINOIS MEDICAL ASSOCIATION.

Meets annually first Tuesday in December.

F. C. Robinson, President.....Wyanet.
 Geo. A. Dicus, Secretary.....Streator.

Number of members, 107.

Number of members in State Society, 17.

LIST OF MEMBERS.

- Angle, E. J., La Salle.
 Baker, J. B., Pontiac.
 Ballard, H. F., Chenoa.
 Bannister, T. O., Odell.
 Banta, C. F., Eureka.
 Barnes, S. M., Fairbury.
 Bath T. W., Ohio.
 Bean, D. H., Mendota.
 Blacke, S. L. B., Tonic.
 Blanchard, Enoch, Minonk.
 *Bonar, B. L., Streator.
 Bower, G. S., Ransom.
 Bradley, C. M., Cornell.
 Braffet, J. H., Paw Paw.
 Brook, J. E., Coal City.
 Brooks, H. J., Elgin.
 *Burke, P. M., La Salle.
 Burns, G. L., Toluca.
 Burns, L. R., Toluca.
 Calhoun, C. D., Earlville.
 Chewning, Jesse, Bloomington.
 Colburne, J. A., Pontiac.
 Cole, Frederick, El Paso.
 Corbus, J. C., Troy Grove.

Ryon, Geo., Amboy.
 Schreiber, G. F., West Brooklyn.
 Sexton, Roy, Streator.
 Slemmons, D. M., Benson.
 Soule, C. E., Sheridan.
 Thomas, D. E., Lacon.
 *Thompson, L. G., Lacon.
 Turner, F. A., Magnolia.
 *Weis, E. W., Ottawa.
 White, C. E., West Brooklyn.
 Whitmire, J. S., Metamora.
 Whitmire, J. W., Metamora.
 Wilcox, E. A., Minonk.
 Wilcox, L. S., Magnolia.
 Wyatt, J. T., Eureka.

MEDICAL AND SURGICAL SOCIETY OF WESTERN ILLINOIS.

Meets May 4th, at Carrollton.

H. W. Smith, President..... Roodhouse.
 H. A. Chapin, Secretary..... Whitehall.

Number of members, 58.

Number of members of State Society, 20.

LIST OF MEMBERS.

Adams, J. W., Walkerville.
 Ash, J. R., Brighton.
 Barnett, A. A., Jerseyville.
 Barnett, H. K., Upper Alton.
 Barry, E. L. H., Jerseyville.
 *Black, Carl E., Jacksonville.
 Bowman, L. M., Alton.
 *Chapin, H. A., Whitehall.
 *Chapman, H. W., Whitehall.
 Clampit, L. H., Jacksonville.
 Clement, F. A., Greenfield.
 *Corr, A. C., E. St. Louis.
 *Corr, L. H., Carlinville.
 *Dalton, W. B., Scottsville.
 *Day, W. C., Winchester.
 Driver, A. G., Carrollton.
 *Du Hadway, C., Jerseyville.
 Erwin, A. D., Fidelity.
 Erwin, O. P., Medora.
 Fenity, E. W., Kane.
 *Fisher, Waldo, Alton.
 Flautt, J. A., Otterville.
 Foreman, C. B., Kane.
 Gledhill, H. R., Jerseyville.
 Gooch, E. S., Carrollton.
 *Hairgrove, J. W., Jacksonville.
 Hall, T. H., Carrollton.
 Hamilton, J. W., Jacksonville.
 Hamilton, L. O., Barrow.
 Hardesty, T. O., Kampsville.
 *Haskell, W. A., Alton.
 *Herriott, E. L., Jacksonville.
 Jonett, E. E., Woody.
 Kincaid, W. L., Roodhouse.
 Knox, W. T., Manchester.
 Lane, J. H., Medora.
 Lemen, H. R., Alton.
 Miner, James, Winchester.
 *McLaughlin, W. K., Jacksonville.
 *Norbury, F. P., Jacksonville.
 Penniman, A. R., Granite City.
 *Pitner, T. J., Jacksonville.
 Pratt, O. T., Taylorville.
 *Prince, A. E., Springfield.
 Proctor, E. G., Kane.

*Redwine, J. W., Whitehall.
 Reed, A. L. C., Cincinnati, Ohio.
 *Ross, G. W., Carrollton.
 Runde, N. M., Kampsville.
 Russell, F. H., Eldred.
 Shobe, A. A., Jerseyville.
 *Smith, H. W., Roodhouse.
 Taphorn, G., Alton.
 Thomas, C. R., Roodhouse.
 Tidball, J., Grafton.
 *Van Horne, A. K., Jerseyville.
 Williams, J. S., Jerseyville.
 Williams, W. T., Nebo.

MILITARY TRACT MEDICAL ASSOCIATION.

Meets annually at Kewanee.

R. E. Lewis, President..... Macomb.
 C. B. Horrell, Secretary..... Galesburg.

Number of members, 74.

Number of members in State Society, 20.

LIST OF MEMBERS.

Aldrich, D. W., Galesburg.
 Alshire, J. H., Plainview.
 *Ball, A. W., Rushville.
 *Bacon, J. B., Macomb.
 Bailey, J. A., Biggsville.
 Beacon, D. F., Blandinsville.
 Becker, Louis, Knoxville.
 Blackburn, R. S., Breeds.
 Blair, S. A., New Philadelphia.
 Biddle, J., Monmouth.
 Bradley, W. R., Galesburg.
 Bradway, C. F., Abingdon.
 Clayberg, S. S., Avon.
 Cowan, J. E., Galesburg.
 Cox, J. Neil, North Henderson.
 *Craig, A. L., Aledo.
 Creel, D. M., Industry.
 Earel, A. M., Abingdon.
 Emerson, W. J., Harmon.
 Filley, H. R., Brimfield.
 Foster, H. A., Gerlaw.
 Grey, W. B., Altona.
 *Grigsby, W. E., Blandinsville.
 *Hall, C. W., Kewanee.
 Haines, W. E., Bushnell.
 Harmison, D. C., Havana.
 Harrison, H. M., Quincy.
 Hart, A., Quincy.
 *Harter, J. F., Stronghurst.
 Hendricks, W. W., Bardolph.
 Holmes, J. B., Macomb.
 Hopper, H. C., Galesburg.
 *Horrell, C. B., Galesburg.
 Hunter, C. W., Victoria.
 Jiles, H. W., Wataga.
 *Johnson, C. G., Galesburg.
 Justis, J. D., Quincy.
 Kamner, Al. J., Peoria.
 Knapp, A. A., Brimfield.
 Knappenberger, H., Macomb.
 Koch, J. A., Quincy.
 *Le Matthey, J. B., New Philadelphia.
 *Lewis, R. E., Macomb.
 Luster, G. E., Galesburg.
 *Maley, W. H., Galesburg.
 Matheny, R. C., Galesburg.
 McGaughey, T. M., Pennington Point.

McKee, E. M., Sciota.
 Miner, Elizabeth R., Macomb.
 Montgomery, C. L., Bushnell.
 *Morris, E. V. D., Galesburg.
 *Owens, D. W., Hersman.
 *Percy, J. F., Galesburg.
 Plummer, John A., Trivoli.
 Powell, Geo. P., La Harpe.
 Powell, Thos., Powelton.
 *Rice, Delia M., Galesburg.
 Richardson, Martha, Canton.
 Riggs, John P., Kappa.
 Roark, J. P., Bushnell.
 *Ryan, L. R., Galesburg.
 Shepard, J. S., Galesburg.
 Shidler, A. L., Ellisville.
 Smith, W. R., La Harpe.
 *Speed, J. N., Rushville.
 *Stremmel, S. C., Macomb.
 Swartz, Edwin, Knoxville.
 Sykes, H. B., Bardolph.
 Tyler, F. P., Galesburg.
 *Tweddale, Jas., Washburn.
 Varel, J. W. H., Neponset.
 *Webster, J. R., Monmouth.
 White, W. J., Rio.
 Williamson, W. S., Galesburg.

SOUTHERN ILLINOIS MEDICAL ASSOCIATION.

Meets semi-annually.

W. F. Grinstead, President.....Cairo.
 O. B. Ormsby, Secretary.....Murphysboro.

Number of members, 221.

Number of members in State Society, 31.

LIST OF MEMBERS.

*Adderey, H. C., Chester.
 Adelsberger, L., Waterloo.
 Agnew, F. W., Makanda.
 Agnew, T. L., Makanda.
 Allen, N. B., Mt. Vernon.
 Allen, Wm. A., Clay City.
 *Alsop, T. E., Carlyle.
 Apple, W. W., Carmi.
 Armstrong, J. M., Edwardsville.
 Asbury, J. M., New Haven.
 Baker, Miles D., Cottage Home.
 Ballance, John W., Harrisburg.
 Ballzer, L. P., Cairo.
 Barger, Dr., Lebanon.
 Baysurger, M. W., Grand Tower.
 Bean, Francis, Fairfield.
 Beattie, A. B., Anna.
 Beckmeyer, J. F., Nashville.
 *Bernreuter, Edward, Mt. Olive.
 Biles, Wm. P., Mt. Vernon.
 Bock, G. G., Smithton.
 Boemer, Chas. E., Venedy.
 Boedt, H. M., Ellis Grove.
 Bolton, E. H., Blair.
 *Bondurant, A. A., Cairo.
 Booth, D. T., St. Louis.
 Bose, Jas. H., Harrisburg.
 Boswell, C. J., Beechwood.
 Bowling, J. W., Omaha.
 Broening, M., Carlyle.
 Bristo, J. C., Wayne City.

Brooking, C. M., Du Wuoin.
 Brooking, C. M., Du Quoin.
 Brooks, J. H., Carterville.
 Brooks, John H., Centralia.
 Broomer, E., Centralia.
 Buker, David, Waltonville.
 Bundy, Dr., Marion.
 Burdick, L., Guyville.
 Burgess, D. L., Sparta.
 Burnett, W. E., Norris City.
 Buxton, W. E., Samsville.
 Caldwell, J. F., Tamaroa.
 Campbell, J. W., Marissa.
 Carr, J. C. D., Galatia.
 Carry, S. B., Cairo.
 Combs, G. W., Ridgeway.
 Carter, A. R., Degognia.
 Carter, W. D., Nashville.
 Clark, W. C., Cairo.
 Coulter, A. P., Marissa.
 Cribbs, Berry S., Carmi.
 *Crouch, E. L., Jacksonville.
 Culp, Theo. W., Pomona.
 Davis, Edward A., Murphysboro.
 Davis, W. H., Fairfield.
 Dean, O. A., Campbells Hill.
 *Dinges, H. A., Red Bud.
 Dodds, F. S., Anna.
 Dodds, Samuel, Anna.
 Doyle, M. R., E. St. Louis.
 Doyle, W. B., E. St. Louis.
 Dunn, Jas. W., Cairo.
 Earnhart, E. G., Carbondale.
 Eddington, J. T., Enfield.
 *Egan, J. A., Springfield.
 Empson, M. D., Hartford.
 Etherton, J. C., Ava.
 *Feigenbaum, Edward, Edwardsville.
 *Ferrell, H. V., Carterville.
 Foster, J. J., Ashley.
 *Gailbraith, Chas. M., Carbondale.
 Garrison, B. E., Wayne City.
 Gault, H. L., Sparta.
 Gibson, Oscar N., Eldorado.
 Gillis, F. P., Du Quoin.
 Goodman, T. B., Cobden.
 Goodner, R. A., Nashville.
 Grear, D. W., Jonesboro.
 Green, Earl, Mt. Vernon.
 Green, W. Duff, Mt. Vernon.
 *Grinstead, W. F., Cairo.
 Gunn, A. B., Bellville.
 Gurley, A. J., Lick Creek.
 *Guthrie, H. B., Sparta.
 Hagerty, Thos., Wayne City.
 Hale, E. H., Belle Prairie.
 Hale, John A., Alto Pass.
 *Hale, Jas. J., Anna.
 Hale, Vincent E., Anna.
 Hall, N. J., Fairfield.
 Hall, S. C., Anna.
 Hall, W. W., McLeansboro.
 Hamilton, J. W., Ina.
 *Hargan, J. H., Mound City.
 Harrall, J. L., Norris City.
 Harrell, W. D., Springertown.
 Harrell, W. J., Elkhartville.
 Hartsman, Hy. G., Vergennes.
 Hassett, J. J., McLeansboro.

- Hastings, Wm. H., Makanda.
 Hays, A. J., Alma.
 Hays, Geo. R., Oakdale.
 Hays, G. S., Oakdale.
 Herold, Hugo, Mascoutah.
 Hester, W. W., Cottage Grove ave., Chicago.
 Hill, E. L., Perry.
 Hillard, T. J., Jeffersonville.
 Holt, Luther, Foxville.
 *Hopkins, J. N., Burnt Prairie.
 Ingram, Dr., Carterville.
 Ingram, W. T., Murphysboro.
 Jacobs, R. H., Stone Church.
 James, W. A., Chester.
 Jamison, T. H., Enfield.
 Jones, Alfred T., Inman.
 Johnson, C. E., Johnsonville.
 Johnson, Wm. M., Johnsonville.
 Johnson, W. V., Cottonwood.
 Keesee, John, Carbondale.
 Keesee, W. H., Carbondale.
 Kuth, L. D., Anna.
 Lane, G. H., Menard.
 *Lee, A. M., Carbondale.
 Leman, J. L., Carmi.
 Lence, W. C., Jonesboro.
 Lemmon, R. B., Norris City.
 Lingle, W. E., Degognia.
 Long, Felix, Enfield.
 Lugh, Jas. T., Du Quoin.
 Lyerley, A. J., Wolf Lake.
 Mames, Jas. M., Cairo.
 Marlow, J. T., Tamaroa.
 Martin, Sid. C., Anna.
 Maxey, Mogs, Mt. Vernon.
 *McAnally, John T., Carbondale.
 McCall, Robert M., Vienna.
 *McKenzie, W. R., Chester.
 McCown, T. B., Chalfin Ridge.
 McLean, W. H., E. St. Louis.
 McMames, Jas. M., Cairo.
 McMillan, Dr., Shiloh Hill.
 Meyers, J. F., Eavensville.
 *Mitchell, H. C., Carbondale.
 Mitchell, J. H., Mt. Vernon.
 Moore, H. H., Fairfield.
 *Murfin, W. W., Patoka.
 Nausbaum, J. L., Jonesboro.
 Neel, E. G., Enfield.
 *Nixon, M. G., Columbia.
 Ormsby, O. B., Murphysboro.
 Parker, C. T., Thackery.
 Parker, V. A., Cairo.
 Parker, Wm. K., Divide.
 Parish, Louis N.,
 Patterson, W. T., Decatur.
 Patton, F. W., St. Louis, Mo.
 Perry, W. H., Carterville.
 *Pitner, F. R., Clay City.
 Plummer, R. W., Mt. Vernon.
 *Raab, E. P., Belleville.
 Rayhill, C. G., Bellville.
 Raymy, Geo. S., Salem.
 Reagin, C. G., Du Quoin.
 Rendlemen, J. M., E. St. Louis.
 Rife, W. C., Villa Ridge.
 Riseling, Chas. E., Murphysboro.
 Roberts, Geo. S., Caruth.
 Robertson, Thos., Steelville.
 Robinson, Jas. W., Waltonville.
 Robinson, Luther T., Ullin.
 Sabine, F. A., Anna.
 Sams, John H., Wheatland.
 Schafer, H. L., West Salem.
 Scaifer, F. B., Sailor Springs.
 Schroeder, S. P., Hoylton.
 Seely, J. A., Red Bud.
 Selvey, R. A., Murphysboro.
 *Sennott, John, Waterloo.
 Sibley, C. W., Fairfield.
 Sims, J. M., Macedonia.
 Sibley, W. C., Fairfield.
 Sloey, Jas., Lebanon.
 Smith, J. R., Carmi.
 Smith, Wm. O., Kimmundy.
 Songer, F. S., Kimmundy.
 Steel, Andrew D., Chester.
 Stewart, E. H., Carmi.
 Stewart, J. C., Anna.
 Stoker, W. A., Evansville, Ind.
 Stokes, W. F., Norris City.
 *Sullivan, Jas. C., Cairo.
 Telford, A. T., Chester.
 Thompson, E., E. St. Louis.
 Thompson, Geo. J., Makanda.
 Thornton, C. M., Osage.
 Tibby, T. G., Beulah.
 Trobaugh, Francis E., Murphysboro.
 Twitchell, Dr., Belleville.
 *Trout, J. J., Nashville.
 Truscott, C. O., Cisne.
 Tulley, F. E., Granite City.
 Vick, J. W., Carterville.
 Walbright, G. W., Round Knob.
 Walsh, John J., Cairo.
 Walters, J. P., Fairfield.
 Watson, Walter, Mt. Vernon.
 Wangelin, Hugo, Bellville.
 Weir, J. W., Sparta.
 Wensbad, M. L., Dongola.
 White, J. F., Richview.
 Whitiker, Hall, Olmstead.
 *Whitlock, J. T., Dix.
 Wiatt, W. D., E. St. Louis.
 Wiggins, J. L., E. St. Louis.
 *Wilcox, S. H., Shattuc.
 Wilhem, A. J., Maystown.
 *Wilhelm, C. F., E. St. Louis.
 *Willson, B. F., Cairo.
 Willson, J. M., Marissa.
 *Wheeler, E. H., Murphysboro.

CALHOUN COUNTY MEDICAL SOCIETY.

Meets third Monday in March, June, September
and December.

P. C. Barry, President.....Hardin.

T. O. Hardesty, Secretary and Treasurer....

.....Kampsville.

Number of members, 12.

LIST OF MEMBERS.

Titterington, M. B., Jerseyville.
 Barry, I. S., Batchtown.
 Barry, P. C., Hardin.
 Flatt, S., Hardin.
 Hardesty, T. O., Kampsville.
 McCracken, F., Hardin.
 McKibbin, J. J., Hardin.

Skeel, W. A., Bellview.
 Tittingen, M. B., Jerseyville.
 Todd, O. C., Batchtown.
 Vaughn, J. R., Hamburg.
 Williams, G. A., Hardin.

ASSOCIATION MILITARY SURGEONS.

N. Senn, President.... Chicago.
 Chas. Adams, Secretary..... Chicago.

Number of members, 50.

Number of members in State Society, 15.

LIST OF MEMBERS.

Adams, Lt. Col. Charles, 69 State st., Chicago.
 *Anthony, Major Frank, Sterling.
 Boeckmann, Lt. Col. Edward, Lowery Arcade,
 St. Paul, Minn.
 *Carter, Lt. Col. C. C., Rock Island.
 Chancellor, Col. E., Oriel Bldg., St. Louis, Mo.
 Coop, Capt. Bedford F., Greenville.
 Cuthbertson, Maj. W., 4553 Ellis ave., Chicago.
 *Dunn, Lt. L. D., Moline.
 Fuller, Maj. C. G., 69 State st., Chicago.
 Girard, Maj. C. G., San Francisco, Cal.
 *Griffith, Maj. B. B., Springfield.
 Hartsuff, Lt. Col. A., Pullman Bldg., Chicago.
 *Heurotin, Maj. F., 353 La Salle ave., Chicago.
 Hilgard, Capt. G. E., Belleville.
 Hoffman, Capt. J. R., Trude Bldg., Chicago.
 *Hooper, Capt. Henry, 541 N. State st., Chicago.
 Hopper, Capt. H. C., Galesburg.
 Hosmer, Capt. A. B., 54 Walton Place, Chicago.
 Keeley, Maj. M. R., Dwight.
 *Kreider, Lt. Col. George N., Springfield.
 La Garde, Maj. L. A., Soldiers Home, Wash-
 ington, D. C.
 Leigh, Lt. Col. C. W., 1610 Waveland ave.,
 Chicago.
 *Lemke, Lt. A. L., 100 State st., Chicago.
 Linnell, Lt. B. McP., 295 Belden ave., Chicago.
 Lippencott, Lt. Col. Henry, Denver, Colo.
 *Lydston, Maj. G. Frank, 100 State st., Chicago.
 Mahoney, Capt. G. W., 275 Superior st., Chi-
 cago.
 Marquis, Maj. Geo. P., 394 N. State st., Chicago.
 Meyer, P. S., R. C. J., Moline.
 Miller, Lt. E. S., 3160 State st., Chicago.
 *McCord, Maj. T. C., Paris.
 Mowry, Lt. A. E., 3035 Michigan ave., Chicago.
 Parks, Lt. C. H., 57 Lincoln ave., Chicago.
 Raymond, Capt. Henry I., Pullman Bldg., Chi-
 cago.
 *Richings, Maj. Henry, Rockford.
 Roberts, Capt. F. E., Oak Park.
 Robeson, Maj. F. J., 73 E. 47th st., Chicago.
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ILLINOIS Medical Journal

The Official Organ
of the
State Medical Society



A Monthly Bulletin
Edited by the
Publication Committee

Printed by
THE ILLINOIS STATE JOURNAL COMPANY.

Entered in the Springfield Postoffice as Second-Class Matter.

Volume L.
New Series, Vol. II. }
Number 10.

Springfield, Ill., March, 1901.

{ Subscription, \$3 a Year.
Single Copies, 25 Cents.

A Synopsis of All Medical Bills Before the Legislature in This Issue.

TABLE OF CONTENTS.

ORIGINAL ARTICLES.

Chronic Inflammation of the Tear Passages—Willis O. Nance, M. D., Chicago..	435
Rheumatic Diseases of the Eye—H. W. Woodruff, M. D., Joliet.....	439
Sympathetic Ophthalmia, With Reports of Cases—A. L. Adams, M. D., Jacksonville.	441
Pneumonia—W. S. Caldwell, M. D., Freeport.....	444
Relation of the Physician to the Public Schools—Kath. Miller, A. M., M. D., Lincoln.....	452
Mental Overwork and Lack of Interest in Physical Development and Hygienic Care of School Children a Menace to the Future of the Race—E. A. Edlen, M. D., Moline.	455
Diet, or Some Phases of It, That Our Forefathers Did Not Have to Meet—W. J. Eddy, M. D., Shelbyville.....	459
Slight Ailments—L. L. Leeds, M. D., Lincoln.....	461

EDITORIALS.

Pernicious Legislation.....	462
-----------------------------	-----

Danger in Healing Hobbies..	462
The 1902 Meeting.....	463

CORRESPONDENCE.

Resolutions of the Adams County Society With Reference to the Meeting of 1902...	464
Synopsis of Bills of Interest to the Medical Profession Now Before the Legislature..	464
Addition to the Report of the Legislative Committee.....	470

COUNTY AND DISTRICT SOCIETIES.

Chicago Medical Examiners' Association..	471
Jo Daviess County Medical Society.....	471
Union County Medical Society.....	471
Cook County Hospital Staff.....	472
Brainard District Medical Society.....	472
Chicago Pathological Society.....	472-474
Will County Medical Society..	473
Decatur Medical Society.....	474
Sangamon County Medical Society.....	476
Chicago Neurological Society.....	477-480
Corrigenda.....	480

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The Illinois Medical Journal.

The Official Organ of The Illinois State Medical Society.

VOL. L.
New Series, Vol. II.
NO. 10.

Springfield, Ill., March, 1901.

{ SUBSCRIPTION
\$3.00 A YEAR.

CHRONIC INFLAMMATION OF THE TEAR PASSAGES.*

BY WILLIS O. NANCE, M. D., CHICAGO.

Assistant Surgeon Illinois Charitable Eye and Ear Infirmary, Professor of Ophthalmology Chicago Clinical School, Chicago.

Lachrymal diseases constitute from 2 to 3 per cent of all eye cases. Of 95,596 patients treated in the eye department of the Illinois Charitable Eye and Ear Infirmary between the years 1859 and 1898, 2,147 or about 2.25 per cent suffered from disturbance of the tear conducting apparatus. Females seem more liable to be affected than do males, in the proportion of at least 2 to 1. This statement seems somewhat strange from the fact that the latter suffer much more from atmospheric exposure, undoubtedly an indirect etiological factor of considerable importance. Fuchs explains this predisposition on the part of women to the "zealous use to which the female makes of the lachrymal apparatus." We find the disease occurring at all ages. C. W. Hawley has recently reported five cases of mucocoele in the new-born, and clinical experience demonstrates that infants are frequently sufferers from lachrymal disease.

Any obstacle to the performance of the physiological function of the ocular drainage apparatus may bring about the condition commonly known as "watery eye." The normal overflow of tears may be impeded by malposition of the lids, stenosis or occlusion of the punctum, canaliculus or nasal duct.

In order to thoroughly appreciate the pathological conditions present, some knowledge of the anatomy and physiology of the parts is necessary. The conducting apparatus begins with two minute orifices, the puncta lachrymales, situated upon the

free borders of the lids, and lying in contact with the eyeball, about two lines from the inner canthus. These openings lead into minute canals, the canaliculi, which pass inward and empty into a reservoir, ovoid in shape, the lachrymal sac. The dilated lower extremity of this sac forms the upper part of the nasal duct, which extends downwards, its membranous walls forming valve-like folds at close intervals, to its exit in the inferior meatus of the nose. Anatomically, there exists an intimate relationship between the lining membrane of the nasal duct and that of the turbinate bodies of the nose, this condition being of importance in view of the statement to be made later on concerning the etiology of dacryocystitis.

The normal function of lachrymal conduction is vested in a delicate mechanism in which the act of winking, capillary attraction of the canaliculi, muscular contraction of the sac, and valvular suction of the nasal duct undoubtedly play important parts.

The lachrymal sac is subject to both acute and chronic inflammatory attacks; the one occurring with all the usual symptoms of suppurative disorganization, the other, a sequel of an acute attack of severe inflammation, or often a quiescent inflammatory condition without previous subjective manifestations. The patient complains of a flowing of tears over the cheek. The eye is said to be "watery," and at the least exposure to wind or dust, fairly "swims" in tears. The vision is more or less interfered with, a frequent wiping of the eye is necessary to bring about a clear image. There may be present a blepharitis or an eczematous excoriation on the cheek, in the region of the inner canthus, the result of irritation from the continuous overflow. There is generally present a distension of the tissue over the lachrymal sac, which

*Read at the Fiftieth Annual Meeting of the Illinois State Medical Society, Springfield, May 16, 1900.

may or may not have received the notice of the patient. The more observant will have discovered that pressure in this locality has caused a flow of viscid matter to enter the eye, or in exceptional cases to flow into the nostril. In a minority of cases, where there has not been sufficient retention of fluid in the lachrymal sac to distend the walls and overlying tissues, mucocoele may not be present.

The question often arises in a case presenting manifestations of epiphora if the excess of tears does not arise from some other cause than that of interference with the normal outflow. We all know that exposure, at times, to the elements, offending particles of dust, obnoxious gases, refractive asthenopia, photophobia from inflammatory conditions of the eye, atony of the muscles of the lower lid without noticeable malposition of the punctum, occurring in the aged, violent outbursts of emotion, sneezing and vomiting, may cause an overflow of lachrymal secretion. In a suspected case, then, we have two methods to aid us in a clear determination of the cause: 1. In a case of lachrymal blennorrhoea, on making direct pressure over the lachrymal sac the swelling will be felt to give way under the manipulation, and in most cases the viscous discharge already spoken of, will be seen to exude from one or both the puncta on the margins of the lids. 2. The forcing of fluid through the passages into the nose will be found to be exceedingly difficult in chronic inflammation of the tear sac, the swollen and thickened walls or strictured lumen of the duct preventing free patency. Besides, a careful examination of the lids and eye-ball for inflammatory manifestations, and a thorough research into the refractive condition of the eye will, in many cases, tend to clear up any doubt concerning this symptom.

Inflammation of the lachrymal sac is, in most cases, undoubtedly an extension of a similar process from the nasal mucous membrane. The similarity of anatomical construction between the lining membrane

of the nose and the naso-lachrymal duct, renders this extension easy of consummation. One would naturally expect, also, an extension of inflammatory process from the other end of the lachrymal tube, from the conjunctival surface as well, but it seems that this source of infection does not play an important part. In proof of this statement, it may be said that we very rarely encounter dacryocystitis as a complication of gonorrhoeal conjunctivitis or other severe ocular inflammation. However, in this connection it must not be forgotten that, on the other hand, the conjunctiva and cornea are extremely susceptible to infection from perverse lachrymal discharge, especially if there be present an abrasion of the tissues. This matter is of extreme import to the surgeon, who would undertake no operative procedure on an eye thus exposed, without at first removing or modifying the conditions present, and to the patient, whose chief danger from dacryocystitis lies in the extreme susceptibility of the wounded ocular tissues to infection.

Patients suffering from lachrymal disease have been, as a rule, subject to frequent attacks of coryza, and upon examination will be found to present abnormal nasal processes. The extension of the inflammation has, by swelling and infiltration, narrowed the normal lumen of the duct, and in this way, has formed an obstacle to the normal outflow of the secretion. The tears, conveying the micro-organisms which exist more or less constantly in the conjunctival folds, and which under physiological conditions are carried away to the nasal fossæ, are retained in the lachrymal sac, where exists an excellent chamber for the culture of bacterial organisms. The impediment to the outflow of retained secretion varies in different cases from a simple occlusion from swollen membrane and inspissated mucous to a true stricture of cicatricial formation. The latter condition, I contend, exists in not more than one fourth of all cases, and where it is present, is, in many instances, the result of

faulty technique on the part of the surgeon, in the passing of probes.

Chronic inflammation of the lachrymal sac sometimes occurs as a sequel of small-pox, of measles and of scarlet fever, exanthemata which present symptoms of nasal inflammation and irritation. Syphilis, by its necrotic inroads of the bony canal, may bring about an attack of dacryocystitis by mechanical obstruction of the passages.

The treatment of chronic inflammation of the lachrymal sac and nasal duct should be directed, 1st, towards the removal of pathological processes and malformations of the nasal chamber instrumental in the causation of the trouble in the vast majority of cases; 2d, towards the restoration of the patency of the passages with as little damage as is possible to the normal anatomical relations; 3d, towards the alleviation of all factors conducive to the production of ocular irritation, reflex or otherwise; and 4th, towards the proper correction of any existent dyscræsia.

The nasal fossæ should in all cases receive careful attention. Any abnormalities of the turbinate bodies should be remedied, especial consideration being paid to the immediate locality of the nasal duct outlet. The character of the nasal discharge should be modified by the frequent and thorough application of some alkaline spray, of which Dobell's solution is probably as efficacious as any.

The restoration of the normal calibre of the passages is a matter of the greatest importance, and the method in which this may be accomplished and drainage apparatus once more be made to perform its physiological function, is a problem on which ophthalmologists hold widely divergent opinions. Some surgeons slit one of the canaliculi and pass probes in every case, as soon as the diagnosis of tear duct inflammation is made. Some incise the lower canaliculus exclusively; others, the upper, and some again, both. Some advise rapid dilatation by probes, others gradual dilatation. Some use probes of the mini-

mum calibre, and increase only to a very moderate size; others use nothing smaller than a No. 8 Bowman and frequently pass a No. 16 Theobald. Some, after slitting the canaliculus, insert a style; others, a canula. The passage of a probe is supplemented by some by a current of electricity; others have suggested the use of a medicated gelatine bougie as a substitute for the metal probe.

This wide variance of opinion regarding the management of these cases only tends to show with what degree of nebulosity we recognize the pathological conditions as they exist, and how empirical, to say the least, is our accepted mode of treatment.

In the first place, let us carefully examine and study each case as it presents itself, and determine as to the pathological conditions present. The dilatation of the punctum and the injection of a simple antiseptic, accompanied by scrupulous attention to the nasal chamber as before suggested, will in a certain number of cases suffice to relieve the constricted lumen of the passages and restore physiological patency. In those cases where pressure on the sac causes a purulent discharge to exude, or the method just mentioned persistently carried out for several weeks does not bring about an amelioration of the symptoms, one of the canaliculi should be slit up and a probe passed. The probes devised by Bowman are in general use. The question as to which canaliculus, the upper or lower, should be operated on, does not seem to me to be a matter of much importance. Two points, however, should be borne in mind in performing this little operation: 1st, make the incision entirely on the conjunctival surface of the lid by inclining the cutting edge of the knife slightly towards the eyeball; 2d, slit up as little of the canal as is possible to allow of the passage of the probe. One-third of the length of the canaliculus is generally sufficient. By observing these simple rules the normal capillary or suction function of the canal, so necessary to retain, will be maintained.

One of the smallest probes should be immediately passed and repassed daily for two or three days, in order that the edges of the wound may not heal; after this short period, the intervals may be lengthened from two to three times a week to once a week or even longer. The introduction of probes larger than a No. 8 Bowman in cases where there exists no true stricture of the duct seems to me to be wholly unnecessary in the average case, and to be extremely liable to injure the membranous walls of the passages, produce further thickening and cicatricial formation and destroy the delicate valve-like folds of the nasal duct, even when exceptional care has been displayed in their use. In this connection it may be well to emphasize the importance of gentleness and precision in the passing of probes. One cannot exercise too much care in their manipulation lest he aggravate the conditions already existing. A little patience and perseverance will oftentimes prevent harmful sequelæ. Another point to bear in mind is, the importance of passing the probe the entire length of the nasal duct, for, as is well known, the commonest location of occlusion or stricture is at, or near the duct exit in the inferior meatus. It is well, when in doubt, to examine the nasal chamber by reflected light, and with a fine applicator feel for the probe in position. The introduction of a No. 6 Bowman probe (having a calibre of one and one-half millimetres) will often give some idea as to the nature of the constriction present. If such a probe is evenly gripped and the impression conveyed that the walls are smooth, even though considerable steady pressure be required for introduction, we may conclude that there exists no true cicatricial stricture. Where the diagnosis of cicatricial stricture is made, the larger probes, or those of Theobald, may be employed. As before stated, however, true stricture of the nasal duct occurs in but comparatively few cases consequently the passage of the Bowman series will, in most cases, suffice.

Probes should be left in position for 20 minutes, withdrawn and the passage flushed with some antiseptic or astringent solution by means of Anel's syringe. The saturated solution of boric acid is commonly used for this purpose. During the past year I have employed a 5 per cent solution of argenin as an injection and am led to believe it to be more efficacious than the boric or other solutions formerly used.

The home treatment of these forms a valuable adjunct to their successful management. The patient, or preferably an intimate associate should be instructed in the method suggested by Gould of alternate pressure and relaxation of the lachrymal sac, the patient reclining, the eye immersed in some antiseptic solution. This manipulation should be performed several times a day with the end in view of emptying the sac of its effete contents and pumping the solution into the passages.

Refractive errors should be carefully corrected and constitutional disturbances remedied. Exercise in the open air and cold baths are indicated in the majority of cases.

In cases unable to undergo a protracted course of treatment, the lachrymal canula or style may be employed. My experience in this connection, though somewhat limited, has been disappointing, and I seldom make use of them.

The instruction of the patient, or some members of his family, in the passing of probes, has been suggested by some surgeons, for those unable to continue office treatment. This procedure I cannot approve of, for the reason that the maneuver, as already stated, is an exceedingly delicate one and should not be entrusted to the inexperienced. If the sufferer be unable to carry on the combined office and home treatment for a reasonable length of time—say three or four months—the canula may be made use of until satisfactory arrangements may be made to attend regularly.

The ancient practice of sac extirpation in obstinate cases has recently been revived.

It seems to me to be justifiable as a last resort in intractable cases, although one must not overlook the fact that complete obliteration precludes the possibility of natural drainage, which sometimes comes about in seemingly incurable cases when the inflammatory trouble has subsided. Preliminary to operations on the globe in lachrymal cases, obliteration is, of course, justifiable and obligatory.

RHEUMATIC DISEASES OF THE EYE.*

BY H. W. WOODRUFF, M. D., JOLIET.

Professor of Ophthalmology in the Chicago Eye, Ear, Nose and Throat College, and Assistant Surgeon at the Illinois Charitable Eye and Ear Infirmary.

That the eyeball should be subject to rheumatic disease does not seem strange when we remember that its principal protective coat is a dense fibrous structure, the sclerotic; that it contains within it the delicate muscular fibers of the iris and ciliary body and externally the muscular bands which move it about; that it is very vascular, one coat alone the choroid being largely made up of blood vessels.

The wonder is that the eye does not suffer more from a disease as prevalent as rheumatism and one which shows such a predilection for fibrous, muscular and vascular structures.

It is not the object of this paper to discuss the subject of rheumatism in general. Suffice it to say that many observers believe it to be, like gout, caused by uric acid, a product of inefficient proteid metabolism, others by lactic acid, a fermentation product of the hydrocarbons. More recent investigators believe it to be a microbial disease. Reinhard believes the throat to be the common infection atrium.

It is governed by the same general laws as other microbial diseases, its effect depending on the size of the dose and the condition of the individual, the part of least resistance being the one most affected.

We know that rheumatism in its acute form, rheumatic fever, is distinctly an inflammatory disease affecting all the tissues and structures that enter into the constitution of an articulation.

Neither the eyeball nor its appendages are often affected by this form of rheumatism. Iritis rarely occurs with it, but cases of conjunctival congestion without mucopurulent discharge have been noticed.

We are compelled, however, to recognize the use of the term "rheumatism" as applied to an extensive group of symptoms which while probably dependent on the same causes with articular rheumatism are displayed in those organs and tissues that are not connected with the joints themselves. Under this term is included a very common disease known as muscular rheumatism which may accompany the acute and chronic articular disease and is often experienced as an independent affection. The predominating influences in the causation of this type are hereditary traits or the "rheumatic diathesis" which may be either inherited or acquired.

Sudden exposure to cold and over muscular exertion are the principal exciting causes. Some of the diseases of the eye ascribed to the chronic type of rheumatism are iritis, episcleritis, scleritis, keratitis, orbital cellulitis, optic neuritis, choroiditis, ocular palsies, glaucoma, and opacities of the vitreous. The most important of these in point of frequency is iritis.

It has been computed by various writers of authority that iritis furnishes from 2 2/3% to 4% of all ophthalmic cases and that syphilis and rheumatism are causative factors of this disease in 90% in the proportion of syphilis 60 and rheumatism 30. It was formerly taught that the etiology of iritis could be determined by simple inspection and it is true that in many cases the papules or condalomata characteristic of syphilitic iritis can be made out.

In the absence of these masses in the iris however, the diagnosis depends on the history of the individual case. In the absence of a syphilitic history or signs we

*Read at the Fiftieth Annual Meeting of the Illinois State Medical Society, Springfield, May 16, 1900.

may find a person of family history of acute or chronic articular rheumatism, symptoms of lumbago, neuralgia, sciatica, torticollis or pains in the articulations or fascia or sensitiveness to changes in the weather. Many cases are subject to relapses of iritis in spring and winter, seasons of the year when rheumatic affections are most prevalent.

Some cases of iritis alternate with rheumatism in other parts and some recur with the swelling of the joints.

I will briefly report three cases representing respectively iritis, episcleritis and scleritis of undoubted rheumatic origin.

The first case (rheumatic iritis) was in a young lady of 25. History of chronic articular rheumatism. Her father was a chronic rheumatic. She came to the clinic at the Eye and Ear Infirmary in February, 1899.

There were present the typical sign of iritis, ciliary injection, pain in the temple, slight adhesions of the iris to the lens capsule which yielded to atropine. No nodules were present in the iris. No history or signs of syphilis either inherited or acquired.

The patient made a rapid recovery under salicylates internally and atropine in the eye and hot applications. The patient was free from trouble until last April, when she presented herself again after having suffered pain in the eye for two weeks. The same treatment was continued and improvement again occurred until the early part of this month, when with a sudden change in weather came a relapse of the rheumatism and also a violent pain in the eye. This gradually yielded to hot baths and pilocarpine and leeches applied to the temple, but the exudate from the iris was more abundant and plastic adhesions more numerous and permanent.

Next in frequency occurs a superficial form of scleritis, episcleritis, which consists of a circumscribed inflammatory nodule generally on the temporal side. It is not movable over the sclera, but firmly attached and of a reddish violet color. This

condition can never be looked upon as merely a local disease, but must be regarded as the manifestation in the eye of some systemic derangement. The large percentage, if not all of them, are associated with the rheumatic diathesis.

A case illustrating this condition is now under treatment at the Chicago Eye, Ear, Nose and Throat College. The patient is a man, aged 40. He has suffered many years from articular rheumatism. He has had at least five attacks of episcleritis. Each attack has left small scleral scars with conjunctiva attached. There is a general chronic nodular condition of the sclera a few millimeters from the corneal margin. Atropine and massage have been used and salicylates internally, but local blood letting with the artificial leech gave most relief.

The most serious, but fortunately rare rheumatic affection of the eye is deep scleritis. Here the circumcorneal congestion is more general showing extensive bluish-red discoloration.

It is a very chronic disease and destructive to vision by the formation of deposits in the cornea and staphyloma of the sclera. I showed a case of this type before the Chicago Ophthalmological Society last December. It was that of a young lady of 29. There was a history of hip-joint disease at 3 years of age. Since that time her general health had always been good with the exception of rheumatic pains in the joints always aggravated during changes in the weather.

The family history was negative. No evidences of syphilis except the interstitial character of the corneal deposit.

There was violent scleral congestion with triangular corneal opacities which the corneal magnified showed to be quite vascular. This condition had existed over a year. A period of five weeks was the longest without a relapse. She was treated with potassium iodide, salicylates, salines, and mercury by inunction. Locally, with atropine, and hot application and massage. The iris was slightly involved. In this

case again leeches gave instant relief during the acute exacerbations.

I have selected these three cases because they represent in the first two, the most common rheumatic eye disturbances, and the third the most serious in its consequences. Note particularly the history of many relapses.

In all a positive rheumatic condition, in one also a family history of it. The case of iritis yielded best to treatment, but so far is not permanent. The two scleral cases are hardly influenced at all, except by heat and local blood letting.

SYMPATHETIC OPHTHALMIA, WITH REPORTS OF CASES.*

BY A. L. ADAMS, M. D., JACKSONVILLE.

Oculist to the Institution for the Blind, the Deaf and Dumb, Our Savior's Hospital, Jacksonville.

Mauthner in his monograph on the sympathetic diseases of the eye, says: "Sympathetic ophthalmia is a general term which serves to designate, not a particular affection, but a whole series of ocular lesions, which differ from one another in their seat and manifestations, but always have a common origin. When an eye is laboring under injury or disease, it frequently happens that the other eye, which has hitherto been healthy, becomes, after a certain time, and without apparent cause, the seat of various functional or structural disturbances. The latter are called sympathetic affections, and, taken together, constitute sympathetic ophthalmia. Those diseases, therefore, which are superinduced in the second eye, upon an injury, or a disease, of the first eye, and which can be traced to no other cause than the original injury or disease, are regarded as sympathetic diseases.

Having seen quite recently several cases of sympathetic affections of the eyes, and realizing the frequent disastrous results from that most dangerous of eye diseases, sympathetic ophthalmia, I thought brief

reports of some cases and a review of the symptoms and treatment might prove acceptable to this Society.

Case 1. F. W., of Carrollton, Ill., on August 27th, 1899, applied for treatment; thirty years of age, farmer, in good general health, complains of inability at times to see to read the paper. At such times he suffers from exposure to light and has much lachrymation. He has headaches through the temples and back of eyes, which are very severe and occur frequently. Examination of the eyes show: Right eye, vision is normal for both far and near; no manifest error of refraction; the iris reacts to light and accommodation. The eye appears to be normal otherwise. Left eye was struck by a wire nail six years ago, causing a traumatic cataract; the tension is -1; there is marked tenderness over the ciliary region, above and to the nasal side; vision equals light perception; the lid droops constantly to shut out the light.

This man has never suffered from headaches or any eye affection previous to the accident. During the periods that he can not see well, the right eye shows a fine injection of the blood vessels immediately surrounding the cornea.

Diagnosis: Sympathetic irritation. The removal of the injured eye was advised, but the operation was refused.

Case II. Mrs. F. F., of Virginia, Cass county, applied for advice and treatment on August 15th, 1899, age sixty years. A history of "grippe" and weakness of the eyes three years ago was given.

She said she had had eczema of lids and a sore on the left eye ball. She had treated it herself by using soft soap and afterwards rabbit's grease. Evidently an irido-cyclitis followed a corneal slough. She now complains of dimness of sight occurring periodically, during which times she also has a dread of light and much lachrymation. She has had several "blind spells," when for a few seconds she could see nothing. Right eye, with proper glass vision equals 6M-15ths, the fields of vision for form and colors are contracted to one-

*Read at the Fiftieth Annual Meeting of the Illinois State Medical Society, Springfield, May 15, 1900.

half of normal. The iris responds very slowly and imperfectly to both light and accommodation. The eye is sensitive to pressure, the tension is normal, ophthalmoscopic examination is negative.

Diagnosis: Sympathetic irritation. Advise enucleation of the "exciter." This was done on August 18th, the following day she declared her eye was stronger and less sensitive to light. She was given strychnia in increasing doses and returned home within a week. On September 11th she returned, reporting that the tenderness to pressure was gone, the fields normal for both form and color, the vision had improved to 6M-12ths. The strychnia was continued. On October 7th, 1899, she reported again, the vision now being 6M-9ths. The eye has continued strong.

Case III. Mrs. I. C. M., aged 50, Scottville, Macoupin county, presented herself in May, 1898, in the midst of a typical attack of sympathetic ophthalmia. Her left eye had been recently removed by a neighboring surgeon, probably with the hope of cutting short the disease. The history in brief was, originally, a corneal ulcer and iritis which had little or no treatment, during the previous July. Within a few months an iridectomy was done. This eye never became quiet and was followed shortly afterward by an irido-cyclitis in the fellow eye. At the time I saw her, vision was reduced to counting fingers at three feet.

As is usual after sympathetic ophthalmia is fully developed, treatment proved of no avail, and her vision gradually declined until it equalled light perception.

Case IV. H. G., age 22, of Carrollton, Ill., was referred by Dr. Howard Burns for advice and treatment. He complained of weakness of vision and an inability to use the eyes for but a few minutes at a time. History: At seven years of age was struck on the right eye with a spike which caused a wound in the sclera near the cornea, traumatic cataract, and was followed by a bulging of the sclera and a chronic irido-cyclitis. The tension is slightly reduced,

pressure causing sharp pain when made in ciliary region above the cornea. He has a chronic nagging headache through temples and forehead. Diagnosis: Sympathetic irritation.

The "exciter" was removed shortly afterward. Three days after this the headache had entirely disappeared. The left eye in which there had been no visible abnormal conditions, felt much stronger, and he could read with ease and comfort, though advised not to do so.

Case V. Mr. D. L., age 54, of Versailles, Ill., occupation a farmer. Right eye was sore in the army, receiving no treatment, remained more or less so with the vision better and worse for fifteen years, at this time the sight was reduced to perception of light and has remained so about twenty years. He says about two weeks ago he caught cold in his left eye which has greatly interfered with his seeing. Present condition, right eye, vision = 0, tension -3. Slight conjunctival injection. The iris is tremulous. This eye has been painful from time to time and is now quite tender to touch in the ciliary region above. By questioning I find he was struck on this eye by the end of a wire about one year ago, since when it has been more tender and irritable. The pupil is irregularly oval and fixed.

The sight in left eye has been changeable since the injury to right, remaining poor and interfering with reading at times. He is now suffering from an inflammation of the iris and ciliary body. The aqueous humour is hazy and ophthalmoscopic examination impossible. He counts fingers at four feet. The small blood vessels about the cornea are congested. The treatment consisted in the use of calomel as a laxative, and proto-iodide of mercury internally. Hot compresses applied for ten minutes out of each two hours through the day time. He was kept in a room moderately dark and avoided as much as possible all efforts to see. Enucleation of the blind eye was advised but was refused at that time, but changing his mind this

was done three days later. This patient is still under observation and the time is too short to say what the outcome will be.

To briefly sum up sympathetic ophthalmia may be said to be a destructive irido-cyclitis, the result of injury (most frequently) to the other eye. It was formerly believed that it was transmitted from one eye to the other along the ciliary nerves and blood vessels, but of late it is more generally believed to result from an invasion of micro-organisms that travel from the injured eye to the other by way of the lymph spaces about the optic nerves and chiasm.

According to Ramsay, the morbid changes in the exciting eye which are likely to give rise to sympathetic inflammation may be classified as follows:

First. Penetrating wounds of the ciliary region, accompanied by prolapse of the iris and ciliary body, are above all others the most liable to cause sympathetic disturbance, which will follow all the more readily if the wound be lacerated, and if the instrument with which it was inflicted was not clean.

Second. Foreign bodies lodged within the eyeball, more particularly if they lie near the ciliary processes, are a constant source of danger, as they tend to keep up inflammatory reaction in the whole uveal tract.

Third. Degenerative changes in an eye previously injured are always accompanied by a certain amount of irido-cyclitis, and consequently an atrophied globe, tender and irritable through calcification of the lens and ossification of the choroid, is invariably a menace to the sound eye.

Fourth. Corneal ulcers which have perforated may form the starting point for a sympathetic ophthalmitis, but it is interesting to remember that an eye which has burst from within is not nearly so dangerous as one in which perforation has occurred from without. Moreover, all clinical experience goes to prove that after panophthalmitis the danger of a transference

of infection from one side to the other is very slight.

Fifth. Sarcoma of the choroid, or dislocation of the lens, accompanied by plastic irido-cyclitis, may also induce sympathetic inflammation, but these are probably the only instances in which the disease arises apart from the existence of a perforating lesion of the "exciter."

Sympathetic ophthalmia more frequently occurs as a result of a perforation by injury or ulcer of an eyeball, followed by plastic irido-cyclitis and is soft and tender to the touch.

The minimum period for the development of sympathetic irido-cyclitis is a few weeks, usually three, although authentic cases have been reported as early as two weeks. The longest period elapsing was a case reported by Lee, where sympathetic trouble developed forty-seven years after the original trouble in the fellow eye. In Alt's table twenty-two and three quarters per cent occurred between one year and ten years, twelve per cent between ten years and twenty years, and thirteen and one-third per cent between twenty-three and sixty years.

An eye which has been destroyed in consequence of an injury may be the cause at any time in the future of an outbreak of sympathetic disease in the fellow eye. The injured eye need not necessarily be totally blind to result in the development of sympathetic disease in the fellow eye. The involvement of the second eye is often very insidious, there being no pain, the main symptom being difficulty in seeing near by or inability to hold the eye fixed on a close object but a short time. When once started it is most difficult to arrest, often times the eye secondarily involved is more completely destroyed; so a nice problem is presented to the surgeon when a case is presented with the inflammation fully developed. Often times the only sight is the remnant left in the injured eye.

Sympathetic irritation is characterized by difficulty in seeing fine print, the eye quickly getting tired, transitory attacks of

dimness of vision and often blindness for a very short time, photophobia and lachrymation and headache. This may be simply a neurosis and pass away without leaving any organic change or it may be the forerunner of sympathetic ophthalmia.

The most satisfactory treatment of sympathetic ophthalmia is preventive. This consists in enucleation of the eye which might give rise to it. Fuchs says: "This is the case in every eye which has been made blind by injury and is painful either spontaneously or upon pressure. Most emphatically requiring enucleation are eyes which are suspected to contain a foreign body. A contra-indication to enucleation is present only when the injured eye has still a serviceable residue of visual power or can get it through an operation. When this is not the case, enucleation should, under the circumstances above given, be performed without delay. In extreme cases, if the patient can not bring himself to consent to enucleation, it is permissible to wait until the prodromal symptoms of sympathetic disease make their appearance, since even in this stage enucleation is generally still able to prevent the outbreak of sympathetic inflammation.

When sympathetic ophthalmia has already broken out, the effect of enucleation is uncertain. In the lighter cases it appears to exert a favorable influence upon the course of the sympathetic inflammation; in severe cases, on the contrary, it is often of no use and appears sometimes actually to increase the inflammation in the second eye. Hence we wait for an abatement of the inflammatory symptoms in the second eye before performing enucleation.

Fick's rules are given concisely as follows:

First. If the first eye is blind, painful, and sensitive to pressure, enucleation is to be advised. It is to be urged if the patient lives away from a surgeon, and thus may overlook the danger of the beginning of a sympathetic inflammation. If the patient will not consent he should be told

to seek aid at the first sign of visual disturbance or inflammation in the other eye.

Second. If the first eye has a foreign body in it, is painful and sensitive to pressure, enucleation is to be urged even if the eye sees. It is supposed of course that the foreign body can not be removed independently.

Third. If sympathetic inflammation or irritation appear in the second eye, the first must be enucleated at once. If the first eye is not blind, but still retains a certain visual acuity and is to some extent quiet, both patient and surgeon will hesitate at such radical procedure. There is, however, no general rule for such a case. We must carefully compare the visual acuity of the first eye, with the degree of irritation in the second, the more there remains to rescue in the second eye, the greater price can be paid by the first.

If the sympathetic inflammation is fully developed, operation proves of little value, then we should lessen the pain by cocaine, atropine, warm compresses and confine the patient to bed.

PNEUMONIA.*

W. S. CALDWELL, M. D., FREEPORT.

Among men who write essays to be read before medical societies, there is a tendency to treat of unusual subjects and to report cases that we do not encounter a half a dozen in a life time.

Certainly, the subject that I have chosen for the first part of this paper cannot be classified under the head of diseases that are of unusual occurrence. By the term pneumonia, as I shall discuss it, I mean a specific disease in which the infection is the diplococcus of Fraenkel and where the local manifestation consists of a lesion of the pulmonary tissues. The disease is one that prevails in all temperate and northern latitudes.

Thompson, in his late work on the prac-

* Read at the Meeting of the JoDaviess County Medical Society, January 25, 1901.

tice of medicine, tells us that the disease prevails in all quarters of the globe. My not inconsiderable observations on this subject prove that this assertion is not a correct one; for I found during my late tour around the world, that in the countries that are situated within ten degrees either north or south of the equator the disease is scarcely ever known.

In an interview with one of the most eminent practitioners of Calcutta he told me that in a practice of 25 years, he had never seen a single case of genuine croupous pneumonia in the capital of the Indian empire. In fact all through India I found no pneumonia until I had gotten 20 degrees north of the equator and a thousand feet above the sea level.

On the contrary, throughout all Europe and North America, next to tuberculosis, pneumonia causes more deaths than any other disease in the whole nosology. During the present year, one-third of all the deaths that have occurred in the large cities of the United States, were caused by this terrible malady. From an observation now extending over a period of 45 years I am satisfied that more than one-third of the healthy adults, who live to the age of 69 in this latitude, die of pneumonia during the late winter or early spring months. Being desirous to limit my paper as much as possible, I shall leave undiscussed in the main, its symptomatology and pathology and limit my remarks to the therapeutical side of the question.

A study of this aspect of the subject by the man who is proud of his profession, and would like to believe that it is making rapid strides in its advancement is certainly most disappointing. For instance, in the Massachusetts General Hospital, where accurate records have been kept for a period of 40 years, though the treatment varied from time to time, the mortality through all this period was essentially the same.

In the German army there have occurred 4,000 cases annually of pneumonia, and while the treatment has varied in each

decade, according to the prevailing sentiment of the profession, the mortality during each of these periods showed a uniformity that proved the utter futility of all therapeutical agents used to combat it.

The diagnosis of croupous pneumonia though not generally beset with many difficulties, is often overlooked or misinterpreted, especially is this the case at the two extremes of life viz: in childhood and old age. In the former case it is often confounded with infantile pneumonia or an acute bronchitis. In the aged the disease often runs a kind of latent course, and the patient dies without the physician's being able to recognize the existence of the complaint.

In these cases the initial chill is often not well marked, and the temperature is but little elevated, and if taken under the tongue or in the axilla is often misleading. In fact, I never rely upon a temperature in children or in old persons that is not taken in the rectum.

If called to a patient within a few hours after the onset of an attack, it is seldom that a diagnosis of croupous pneumonia can be made with any certainty.

The chill that we so much depend upon as an initial symptom, is absent in about one-third of all cases. The crepitant rales that are among the first physical signs to be heard on auscultating the chest are very hard to differentiate from the dry friction sounds of the first stage of an acute pleurisy.

In the numerous hospitals that I visited in all parts of the world, and the celebrated men that I have interviewed, I have made it a point to glean from them an outline of their treatment of acute pneumonia.

Some years ago I heard the celebrated Dr. Reese of Guy's Hospital in London, when beginning a lecture on the treatment of lung fever, make these remarks. "Gentlemen, I shall not be able to make a single assertion in relation to the subject under consideration, but some one with equal authority with myself, will give it the flat contradiction."

In an interview with Furbinger of Berlin I asked him whether croupous pneumonia in his practice was more fatal than it had been in former years. He replied that it was not; and when I informed him that it was much more fatal in my practice than in former years, he replied, "I am not astonished at that fact for you kill your patients with the remedies you give them." He then quoted from Bartholow and other authorities who advised the administration of heroic doses of quinine and arterial sedatives, and wound up by saying that he was surprised that patients thus treated did not all die.

In fact, I myself fail to see for what purpose large doses of quinine are given in pneumonia unless one is certain that the patient is suffering from a complication of true malaria. Usually in my interviews with prominent members of our profession, when I have asked them as to their management of cases of this disease they have very properly answered, that they did not adopt any routine plan of treatment but managed each case according to the symptoms that it manifested, and the peculiar constitutional type of the patient.

The exception to this rule I found to prevail in Stockholm in Sweden, and in Moscow in Russia, where the cold baths and cold packs are in general use except perhaps, in the very old and debilitated.

Another exception to the symptomatic management of these cases I found in the case of a few French physicians.

The late Germain See and Dr. Huchard the editor of the *Le Journal des Practiciens*, and a clinical teacher at the Necker, in Paris, both claim that death in pneumonia always comes through a heart failure, and they begin early to give huge doses of digitaline to ward off this untoward complication. Huchard uses from 20 to 30 drops of a one to 1,000 solution of digitaline hypodermically, which is a most heroic dose.

The French generally discard all preparations of digitalis as unreliable except

the digitaline. On the contrary, in the *Allgemeines Krankenhaus* at Vienna, one never sees this agent prescribed in any other form than that of the cold infusion, tinctures and fluid extracts being entirely ignored. Personally, I believe that as a heart tonic pure and simple the digitaline is the preferable agent, but if you wish to combine with its heart tonic that of a diuretic, the infusion is by far the most desirable preparation of this drug.

While many of the most noted French authorities advise the administration of active heart stimulants from the very beginning, of an attack of pneumonia, Nothnagel and other Vienna physicians tell you to never begin the use of these remedies until the heart begins to fail, believing that if their use is begun too early they will fail to act when their action is most needed, or as they put it, never apply the whip until the horse's strength begins to fail.

As I look back over the last two decades among the most important changes that I have observed in the treatment of the disease under consideration, is the almost total discontinuance of all classes of expectorants. A quarter of a century ago the impression prevailed that a large amount of the fibrinous exudation that is thrown out into the air vesicles must be expectorated and thrown out by the mouth.

We now know that expectoration plays but a minor role in ridding the system of this exudation, for 99 parts out of a 100 of this material is absorbed and carried into the circulation from which it is eliminated by the different emunctories of the system.

Instead of these expectorants the modern men of the German and Austrian hospitals use the hot alkaline mineral waters. Senator of Berlin gives the patient from four to six ounces of hot vichy water every two hours, to every dose of which is added a few grains of the *Bicar. of Soda*.

The theory upon which this agent is used is that it has a tendency to liquify the bronchial secretions, keep the bronchioles

free and thus prevent the spread of the disease to new areas of the lung tissue.

If a hot alkaline drink will answer the purpose of an expectorant that must necessarily nauseate the patient's stomach and interfere with its function, one can see at once the immense advantage of the former remedy over the latter.

These hot alkaline drinks are only serviceable in the early stage of the disease, and at a later period the Iodide of Potassium is administered to fulfill the same indication. At the head of the bed of every pneumonic patient in the Allgemeine Krankenhaus in Vienna, you will see a bottle of Vichy water and a yellow mixture composed of the yolks of eggs, kresote, and cogniac. These are absolutely the only remedies administered to the ordinary case of acute pneumonia, that is running an uncomplicated course.

Accompanying nearly every case of pneumonia, there is a certain degree of kidney complication, and an examination of the urine to ascertain the amount of albumen it contains and the amount of eliminative function that the kidneys are performing, should come in as a part of the management of every case of lung fever.

One of the advantages claimed by Nothnagel of the free use of alkaline drinks in this disease is, that it stimulates the kidneys to action and wards off a uremic complication that often closes the scene in fatal cases of this complaint. Temperature as such, does not receive that attention that it did a quarter of a century ago among German physicians.

Back in the '70ties when I spent considerable time in Vienna, a temperature that approached 104 degrees was looked upon as a dangerous complication and the patients were given cold baths until the bodily heat was brought down to 101 or thereabouts. During my stay at the same place in 1900, I found the cold tub bathing almost entirely abandoned, and the ice packs to the chest used in its stead, and this only resorted to, in the more

sthenic cases and where the temperature was having a profound effect upon the nervous system.

In a discussion of the treatment of pneumonia before the 18th Congress of German Physicians, some objections were raised to the use of the cold baths by those who took part in this debate. Nothnagel of Vienna in his remarks on this subject said: "I should regret most profoundly to have an impression go forth to the medical profession of our Fatherland unfavorable to the use of hydrotherapy in the treatment of the disease under consideration."

He said, "My opinion is that we use too little cold water in our treatment of this disease. For my part I use this agent in all its forms, cold baths, tepid baths, cold sponging, tepid sponging, cold packs, tepid packs and if I have ever experienced any regrets as to the use of this agent, it has been that I have not used it often and freely enough."

As I before remarked, it is not so much temperature as such that we are called upon to combat, but the effect that the toxic agents that accompany this disease is producing upon the nervous system. In fact, many cases are on record that have recovered after having had a temperature of 108 degrees.

I was called in consultation during the present month in a case that illustrates the profound influence that is sometimes produced by the pneumococcus upon the nervous system of the patient. The case was that of a young and vigorous man 21 years of age and in whom the disease occupied only one-half of one lung, and where the temperature had never registered higher than 103 degrees.

He was taken at midnight with a violent delirium from which after lasting for six hours, he sank into a semi-coma from which he could only be partially aroused. His conjunctivae were red and congested and his pupils reacted only partially to the influence of light. The patient's whole chest was packed with hot poultices.

To the amazement of the attending physician as well as the friends of the sick man, I advised an ice pack to his spine, his head and his chest. The friends reluctantly consented to the change, however, before I left the doctor hinted to me that if the patient died I would have the credit of killing him. I replied that I willingly assumed the responsibility.

The patient recovered.

This leads me to remark that I have no patience with that cowardly spirit that prevents a physician doing his whole duty when an emergency arises simply because a narrow, ignorant, public sentiment opposes what he thinks is right, and what he thinks he ought to do.

I made my virgin reputation back in the fifties by curing some desperate cases of scarlatina by the use of the cold pack; and the mothers of these little ones have ever since had a warm place in their hearts for me. In later years I have lost some cases under the same treatment and the mothers of these little dead ones look askance at me as they pass me on the street and believe that they recognize in me the murderer of their little innocents.

With all this happy and sad experience I still persist in treating a certain class of cases of scarlet fever with cold water.

Leaving to one side the views of others and coming to consider my own experience and deductions in the treatment of pneumonia, I give these opinions with a good deal of reserve, for we all know that many of the deductions arrived at in medicine on experience are extremely fallacious and misleading. Having hung out my shingle at a time when blood letting was no longer looked upon as the only antiphlogistic means at our command to combat inflammatory affections. In its place I eagerly adopted arterial sedatives.

Norwood, back in the early fifties made a tour of the medical colleges of the United States, preaching the gospel of the *Veratrum Viridi* as a saving agent for all sufferers from pneumonia. Armed with this powerful drug, supplemented by

aconite and tartarized antimony, I felt myself capable of doing efficient battle against this strong foe of the human race.

During the decade that I used these agents I came near killing a half dozen patients from their depressing effect upon the heart's action.

This decided me to abandon their use, and with the exception of aconite, I have not given a single dose of either of these drugs for ten years. The aconite I still carry in my pocket case and put a few drops of it into a tumbler full of water when I wish to give a placebo.

I suppose that four men out of five who listen to me, prescribe this agent seven days in a week, and I can assure you further that you are laboring under a delusion if you imagine you ever get any beneficial results from it, for it only reduces arterial tension and temperature when given in a dose that is toxic in its effects, and dangerous to life.

My disappointment in these agents drifted me for a decade into a spirit of agnosticism in the use of drugs for the treatment of pneumonia. This spirit of therapeutical skepticism was heightened by long stays in Germany and Austria, and listening to the teachings of that great instructor, Nothnagel, who used to say to us, "Gentlemen, when you are called to a case, make a careful diagnosis, and when you have done that, never ask yourself first what shall you give the patient, but always precede it by the question, shall you give him anything."

After a decade and a half of uncertainty and oscillation in my ideas of the management of pneumonia, I will close this paper by giving this Society an epitome of my treatment of these cases. The first essential in the management of a case of lung fever is, that the patient shall have plenty of fresh air to breathe.

Many times when called in consultation to see a bad case of pneumonia, my first act is to advise the attending physician to discontinue his arterial sedatives and cold tar preparations, and open the windows

and doors and allow the patient plenty of fresh air. One of the worst cases that I ever saw get well was a woman who lived in a log shanty near Millville, west of here, who was nearly blown out of bed by the wind, and the room was so cold that water froze in fifteen minutes at her bedside. Put the patient in the largest room in the house, cover him up warm and keep the room well aired and cool, at no time allowing the temperature to rise above 65 degrees.

If the case be that of a healthy adult and no complications, I would give no regular medication at the outset, save about ten grains of Bicar. of Soda every two or three hours in half a glass of hot water, and a mixture of the yolks of eggs and kreosote, to the last of which I would add a little whisky if the circulation and general condition of the patient seem to demand it.

The administration of this last agent acts as a disinfectant to the alimentary track and prevents a tympanitic condition of the bowels which is often a most serious complication to deal with. For the pleuritic complication I would use mild mustard plasters followed by a wet compress and hot water bag.

As an anodyne I would try first the Heroin, and if that failed to produce an effect I would resort to the Dovers powders or small doses of morphine. One of the greatest changes I have observed among our best authorities is the freedom with which opiates are now used in pneumonia as compared with what it was ten years ago.

Dieulafoy says that we allow our pneumonic patients to cough themselves to death and die of exhaustion when a few doses of morphine judiciously given would save their lives. Among the villainous things I was guilty of in my early practice was the application of cantharides plasters to the chest of patients suffering from pneumonia.

Not only were they useless but absolutely detrimental, in that they tended to

increase a kidney lesion that is a complication of every case of lung fever.

Huchard some years ago read a paper before the academy of medicine in Paris in which he condemned the use of cantharides blisters in all infectious diseases on account of their tendency to excite an acute nephritis, and his suggestions have ever since been followed by the profession throughout France.

In Stockholm where massage and the Swedish movement cure is applied to the treatment of nearly every known disease, this form of therapeutics has been called into requisition to relieve the pleuritic pains that are so often a most harassing complication of the disease under consideration. Dr. Tagesson Moeller of Frankfort on the Main, in a late number of *Le Semaine Medicale*, advocates in the most glowing terms, massage for the treatment of the pleuritic pains of pneumonia, not only because the procedure lessens the suffering of the patient, but also because it stimulates the act of inspiration and thus allows the patient to inhale more air into the lungs.

The massage is performed by applying the fingers in the intercostal spaces and rubbing vigorously, remembering that this process must be practiced both on the well and diseased side. Even more than the respiration, the circulation should be carefully watched in every case of acute pneumonia.

The frequency and quality of the pulse is not only to be observed with the greatest care, but the veins upon the side of the neck are to be carefully noticed, and above all the area of the right heart is to be scanned from time to time to see if there be a tendency to a dilatation of its walls. Whenever the circulatory apparatus begins to show signs of weakness we should resort at once to our heart tonics.

Of these Strychnine, digitaline, and camphor are most to be relied upon. I am, however, in my own practice, in the habit of discontinuing the use of strychnine if the patient has a good deal of cerebral con-

gestion, and a tendency to be wild and excited. The camphor I always use in the form of an oil solution and hypodermically. Strong coffee I give freely alternated with strong milk punch.

As to the efficacy of the last named agent I am not wholly convinced, and I find among the best men with whom I have come in contact that there is a growing tendency to discard more and more the use of alcohol in the treatment of all acute fevers. The carbonate of ammonia seems often to act well in combination with other stimulants, but I look upon it as of much less worth than the agents I have before mentioned.

Besides, the internal remedies to which I have referred I always hold in reserve three most powerful agents that I call into requisition when I consider their use demanded. These are the inhalation of oxygen gas the injection of large quantities of the normal salt solution into the cellular tissue under the breast, and the use of cold applications to the chest.

For six months in the year I keep a careful watch over my tank of oxygen gas and see that it is always full and ready for use. My sterilized rubber bag and needles I always carry ready for use when pneumonia is prevalent. The use of cold to the chest I believe to be our most powerful remedial agent in the treatment of certain forms of pneumonia, and though I do not believe that its application ever does a patient any harm, it fails in a certain number of cases to be of any benefit.

One sees its most happy effects in the sthenic cases that are associated with a high temperature or a profound involvement of the nervous system. I have saved many lives, especially in children, with it.

The oxygen gas acts best in a class of cases where the cyanosis is marked and where nevertheless the pulse is fairly good. Where heart failure is very marked, the agent seems to do but little good.

To be of benefit the remedy must be repeated at short intervals, say every thirty or forty minutes, and used about

five minutes at each seance. Just how the sub-cutaneous injection of the normal salt solution acts beneficially, it is a little difficult to say.

Some think that by diluting the blood by the admixture of this agent with it, you render it a less favorable field for the germ to thrive in, and thereby hasten its death. To accomplish this end more thoroughly I have seen a vein in one arm opened, and the blood allowed to flow from this, while a stream of the salt solution is allowed to flow into a vein in the opposite arm and in this way alter profoundly and rapidly the quality of the circulating fluid.

However, this operation is always accompanied by some danger and should only be resorted to by those who have the means of accomplishing a thorough process of asepsis and who are well up in the technique of the procedure. At the Pitie in Paris I saw Jacoud use the salt solution in a manner that seemed to me the most rational I had ever witnessed.

Two reservoirs are used to contain the liquid that hold half a gallon each. These are hung about one yard above the patient on each side. Connected with each irrigator is a thermometer that registers the temperature of its contents and these are kept as nearly as possible at 104 deg. F. A cannula is introduced under the breast or on the outer aspect of the thigh, of a size that allows the salt solution to flow into the tissue just as fast as it is absorbed and no faster. It gives no pain and inconveniences the patient but little.

Whatever be the correct theory as to the manner of action of this agent, its action in some of the worst cases is certainly most beneficial.

A review of the latest literature on the subject of croupous pneumonia and its treatment, was a source of disappointment to me. One-third of the 16th volume of the Twentieth Century of the Practice of Medicine, is devoted to this subject and it ought to be considered the very best and

latest to be found anywhere in the whole domain of medicine.

The author, however, has lessened greatly the value of his article by his effort to glean from the articles of the *Materia Medica* some remedy that shall act as a specific agent, that is, as a true germ destroyer. For this purpose he advises large, and oft repeated doses of calomel with a view of its gaining access to the blood and destroying the germ that is the cause of the disease.

In the light of experience and common sense, this remedy can disinfect nothing, but the alimentary tract, and if given too freely, will debilitate and weaken the patient. He quotes an array of authorities that advise the use of quinine in large doses, believing that the drug may act in a specific manner as it does in true marsh malaria, adding, however, that if it does not act in this way, its action may prove beneficial as an antipyretic and a general tonic.

Any man who uses quinine to lower the temperature of the body in an acute fever not malarial, in character, certainly does so to the detriment of his patient. And to talk of 40 grs. of this drug given in the 24 hours acting as a tonic, is the most stupid nonsense and shows that those who advise it are wedded to a routine practice and blind to the physiological action of this sadly abused drug.

Following out the same idea, cases are quoted where large doses of creosote given every two hours have worked wonders in the treatment of this disease, on the theory that the agent is eliminated largely through the lungs. While I have used an inhalation of the vapor of creosote in some cases with apparent benefit, I have never found its internal administration act in any other way than to derange the patient's stomach and bowels if given in large doses.

In the same volume the Salicylate of ammonia is lauded as a specific agent and those who use it, claim that it often aborts the disease if given early and in sufficiently large doses; all of which I look

upon as false both in theory and in practice. Since the success that has attended the use of the anti-toxin in the treatment of diphtheria, investigators have been busy experimenting in other specific diseases endeavoring to elaborate a serum that would act as a specific in the treatment of these affections.

Lara of Turin and Washbourn of Guy's hospital have each prepared a serum with which they have experimented, and report some excellent results; but other observers have not been equally successful with the agent, and it is not generally relied on as a remedy by our best authorities. In scanning the periodical literature of the last year on the treatment of pneumonia, I believe Eichhorst in the *Therapeutische Monatsschrift*, gives the best resume that I have seen.

He reviews the different ideas concerning the treatment of pneumonia which have prevailed during the present century, in all of which there has been a seeking after some specific for the disease, a false and illusory hope. He refers to the treatment by bleeding, in the early years of the century, which was replaced after the third decade by an attempt to cut short the fever by the administration of depressants, as aconite and veratrum. At present croupous pneumonia is regarded as a disease that tends to get well of itself, and any unnecessary administration of drugs is apt to upset the patient's digestion and compromise his chance of recovery.

The most frequent cause of death being failure of the heart, any treatment adopted should from the beginning aim at guarding against this accident. In those cases where there is danger from heart failure, digitalis may render valuable aid, but caffeine he regards as being frequently of more service.

In very severe heart weakness he recommends the hypodermic injection of oleum camphoratum every hour, or even oftener. When the patient is young, and otherwise healthy, Professor Eichhorst insists upon the inadvisability of giving any drug whatever. Alcohol should never be

given as a routine practice, but only when the state of the pulse and the general condition show that it is really required.

As regards the use of narcotics, Dr. Eichhorst considers that their use requires much care and judgment. When bronchitis is severe it is not desirable to employ an opiate; but in cases of acute delirium and continuous sleeplessness morphine may save life.

Pleurisy is a concomitant of nearly every case of true pneumonia. Effusions both purulent and serous are likely to occur into the pleural cavity. If in the course of the disease these be purulent, there is but one course to pursue and that is to open up the pleura and drain it. If however, the fluid be serous in character, the rules that should govern our practice are by no means well established.

While eminent authorities like Furbinger of Berlin advise the drawing off of the smallest amount of fluid, the rule followed in the Allgemeine Krankenhaus in Vienna, is to not interfere unless the quantity of fluid effused interferes seriously with the functions of respiration and circulation.

It is however, the displacement of the heart that is looked upon as the most urgent indication for interference. However large the quantity of fluid may be, only two or three pints should be drawn off at one sitting. All remedies in the way of diuretics and diaphoretics to cause the absorption of the fluid, are looked upon as worse than useless as they weaken the patient without in any way accomplishing the object for which they are given.

RELATION OF THE PHYSICIAN TO THE PUBLIC SCHOOLS.*

BY K. MILLER, A. M., M. D., LINCOLN.

While it is old-fashioned to style our public schools "the palladium of our liberty," no thoughtful person fails to realize that the old idea has not vanished, but

grown more prominent and important as the relaxation of so-called puritanical discipline in the home and the incoming of an immense body of uneducated foreigners from the lower classes of southern Europe have made the public schools the only place where this mass of lawless and unassimilated material may be transformed into a good American citizenry. It is perhaps aside from my topic to wonder that our statesmen do not perceive the danger involved in submitting this work to the hands of a class largely disfranchised and with a patriotism all untrained in the daily drudgery of civil affairs. However important, that subject, as Kipling says, is another story.

Our profession represents to a degree, the broadest intelligence of our state, those among secular professionals who are most accustomed to look at every subject from a stand-point remote from personal interest. We may well inquire, then, whether we have any special relation to the public school and to the problems of popular education. Responsibility increases with opportunity and ability; and that we have an especial relation to these questions is indicated by the fact that nearly one-half the communities of our State electing boards of education (aside from country districts) include M. D.'s among the members. Recent correspondence with a number of these gentlemen and ladies has brought me some interesting suggestions and has emphasized the thought that in many places both physicians and people feel that we have especial qualifications for this work by virtue of our knowledge of the sanitary principles involved in school hygiene and of the relation existing between good physical conditions on the part of pupils and teacher and the amount and quality of work accomplished. To us the educator turns more and more for help as he recognizes the practical questions involved and to be met by him in securing the advancement of his pupils. He realizes, perforce, that a pupil with continual headache cannot easily learn, that pupils

*Read at the Fiftieth Annual Meeting of the Illinois State Medical Society, Springfield, May 16, 1900.

anesthetized by foul air are not alert to catch ideas. He finds that all his modern methods of presentation do not lead his flock to more rapid acquisition of knowledge than was found in the old log school house, and he asks, why? The medical man of today stands ready to answer him. The pure air of the old log house with its clay-chinked walls was a perfect offset to all the new methods of instruction given in well-built but unventilated houses.

If any of you have never visited the schools of your community, let me urge you to do so; not the high school, which is less apt to be over-crowded, but by preference, a room where the children average 10 to 12 years of age. Go on a chilly morning, preferably a damp day and not before eleven o'clock, and question of your nose what are the conditions under which study is done and query whether you have not some special relation to the school by virtue of your knowledge of the evils you perceive and of the means for their relief.

There are three lines along which our professional training may be helpful, the sanitary, which deals with the school buildings and their equipment of desks, etc., the matter of personal hygiene, which includes the prevention of the spread of contagious diseases, and the investigation of physical defects, such as poor sight or hearing, to the child's school work; and the psychological, which considers the relation of the teacher to the child so far as methods of instruction or discipline affect its health as by the imposition of unreasonable tasks or the infliction of unreasonable and extreme punishments.

The two former of these have already interested many of our number. The last has only begun to attract the attention of those competent to discuss it, though we less frequently hear the statement that the evil results of school life are due to overwork, and oftener find an appreciation of the fact that truly hygienic surroundings would generally enable the child to do the work required without harm even though handicapped by a poor physique, in fact,

that bad air, bad light and bad seating are more often the cause of that failure of nerve power which has been attributed without investigation, to the assignment of extreme tasks. We are beginning to realize that one great reason for the need of home study by most of the pupils below the grammar grade is that the school-room conditions are so unhygienic that the children cannot do the amount of work they might during school hours. It becomes the duty of the physician, then, to educate the community to demand the proper conditions in school life and then to select carefully and advise as to the very few pupils who will be found so defective in stamina that they cannot do full work even under favoring conditions.

It is true we have many teachers entirely untrained in psychology who need to be shown how their methods transgress every law of mind. Many will prove unteachable and we may help (in a most thankless way, perhaps) to benefit the coming generations by acquainting parents with the lack and by assisting in the development of a sentiment which will demand the employment of teachers who have studied how to teach.

For the present, however, we can make more apparent progress along the other lines of work, where we are already acknowledged by many communities to have special and valuable knowledge. It is possible in most places where new school buildings are in prospect for the well informed physician to do a lasting favor to his neighborhood by interesting himself in the sanitary features of the structure. Even though he be not a member of the board of education he will certainly have friends among the members through whom he may influence the architecture. He may, through the local press, interest others of intelligence and make such building the occasion for extending knowledge of the principles of ventilation and lighting and of the harm to the health and education of the children due to defects in these directions. In the remodeling of old buildings and the adjustment of all possible

means to minimize their defects by introducing devices for aiding ventilation and through the arrangement of shades, awnings, etc., to regulate the lighting much may also be accomplished. Most of my correspondents regard this as a fertile field for professional endeavor still too little cultivated.

A department of work most readily conceded to us by the people and in a few of our larger cities already established in official station, is that dealing with contagious diseases. The reports of work in Boston and other cities are very interesting from the professional side, and not less profitable from the citizen's standpoint. The great increase of such diseases on the opening of schools in the fall and their rapid decrease on closing school in the spring show their dependence upon the intimate relation of school life for their extension. Often 40 to 80 children are huddled together in a room generally with lack of ventilation compelling them to breathe disease contaminated air again and again, and favoring the concentration of disease emanations till contagion is rendered almost a certainty. Edward Bok of the Ladies' Home Journal is correct when he says that "a national crime lies at the feet of American parents;" but he has, in my opinion, mistaken the character of the crime. It consists, not in the curriculum of the schools, but in their unsanitary conditions which are the product of combined ignorance and parsimony. The ignorance can only be eradicated by the efforts of our profession and when it is gone the parsimony will vanish.

The rapid decrease of contagious diseases, especially of diphtheria and scarlet fever, which follows where there is daily medical inspection of those pupils found by the teachers not to be in good health, shows how valuable a service physicians may render in this way. Of course in small communities it might not be possible to arrange for a system of inspection at the school-houses but much might be done if teachers were required or expected to send all ailing

children to their family physician for inspection and report as to their fitness to continue in school. We should find the work very slightly burdensome even if we did it gratis and it would often enable us to detect the early symptoms of serious disease among the children of our clientele thus preventing much suffering and anxiety.

During the past winter several cases of diphtheria occurred in one quarter of our town and we found great advantage with but slight inconvenience and marked relief from the "scare" among the people, in a rule that all teachers should inspect their pupils' throats each morning by inquiry as to soreness and, in the smaller ones, by external examination for enlarged glands. All cases showing any signs of trouble were required to bring a physician's certificate that they had no contagious disease before continuing in school. As I was a member of the committee having the matter in charge, many of the teachers sent most of such cases to me. It took but a moment to determine whether there was a condition requiring treatment. If the enlargement was the result of old tonsilitis and without acute symptoms I gave a certificate. If acute inflammation existed I sent the children to their family physicians or to their parents with directions to consult a doctor, and gave prompt treatment to those of my own clientele. The disease was quickly under control and not a single case developed while the child was actually in school; what extension occurred from the first cases being apparently due to imperfect quarantine and the mingling on the street of children from affected families with others. This inspection, simple as it was, made parents more watchful and children with comparatively mild sore throat were often detained from school and sent to a physician who would otherwise have become much more ill before receiving attention.

In the examination of the sight and hearing of school children, Minneapolis, Baltimore and a few other cities have led

the way, and many a child is now studying in comfort whose progress had been greatly handicapped and health impaired by the nerve strain due to defective vision or deafness.

Much credit should be given to Drs. Wood, Harlan and others in the east and Dr. Frank Allport, of Chicago, who planned and begun this work. The results of these investigations, made almost altogether by those unskilled in such matters and hence apt to overlook slight errors, show an appalling amount of visual error among our young people, largely caused by the unhygienic conditions of our schools. These results set before every intelligent physician an opportunity for usefulness on the one hand, in establishing such tests in his own community and on the other, in removing from the schools those factors which have been shown to be active in producing or aggravating such defects.

So we are led again to the point from which we started, the value of our professional knowledge to the schools and our consequent responsibility to use it for their good in advising as to questions of sanitation, the location and drainage of school grounds, the proper arrangement of foundations, the proportion of height of ceiling to floor space, so as to insure good ventilation with easy heating, i. e. as easy as the welfare of the pupils will permit; the arrangement of windows, the blackboards, the desks and seats, the books in their typographical makeup, the positions and exercises of the children during school hours, and the study hours out of school,—all these questions with their tremendous bearing on the welfare of the individual pupil and the results in his life and the consequent relation to the prosperity of the State, are subjects for whose consideration our medical training has made us competent beyond the average citizen.

That we are awakening to our possibilities of usefulness in this relation is evidenced by the increasing number of articles on these topics read at medical meetings and published in medical journals. It will be

conceded that our profession has never shirked any duty presented to it (except that of uniting for efficient legislation for the public health and against the scoundrels who are the camp-followers of our beneficent army). It needs no prophet, then, to predict that within the next generation we shall see a large number of the best trained physicians giving a portion of their time and influence to improve the conditions of school life and that the results will be evident in stronger bodies and better trained minds than are turned out as the finished products of our schools today.

MENTAL OVERWORK AND LACK OF INTEREST IN PHYSICAL DEVELOPMENT AND HYGIENIC CARE OF SCHOOL CHILDREN A MENACE TO THE FUTURE OF THE RACE.*

BY E. A. EDLEN, A. B., B. S. M. D., MOLINE.

The present system of education in public schools, with all its advantages, undoubtedly tends to the development of the mind at the sacrifice of bodily health and physical development. The average school teacher takes great pride in exhibiting the mental progress of his class and is blind to the havoc worked on the physical development of the children by forced and indiscriminate study. Every inducement and various threats are held forth to the child in order to make it come up to the required standard of education; regardless of ability or physical strength and endurance. The child is required to study such subjects as are beyond the grasp of its mental faculties. The weak and puny, as well as the physically strong, but mentally undeveloped child is required to learn what can be done only by the bright and healthy one. No discrimination in favor of the first named classes of children is allowed, principally, I presume, on account

*Read at the Fiftieth Annual Meeting of the Illinois State Medical Society, Springfield, May 15, 1900.

of the inability of the average teacher and pedagogue to discern the importance of grading the studies according to the strength and capability of the individual child. Some teachers even carry their absurd methods of teaching so far as to keep the whole class back on account of the inability of a single pupil to learn the required lesson. The cause why a child is unable to do the work mapped out, is very seldom inquired into, although frequently it would be easy to detect, and it is a fact that the cause seldom is laziness but something that would require an entirely different mode of treatment than what is usually applied in a case of laziness. The failure of the teacher to comprehend the importance of finding the real cause of the backwardness of a pupil has blighted the future of many a promising life, and it is time that the intended teacher should learn a little more about public school education than the mere stuffing of undigestible mental food into the pupils.

The recitation hours are too long, and the teacher is frequently unable to make the study interesting. Unless interest in any kind of work is created, it becomes irksome and a drudgery. This is especially the case in the education of children. It is a well known fact that a child is unable to fix its attention on any subject but for a short time, yet small children are compelled to sit still in a schoolroom, which is too often poorly ventilated and overcrowded, for an hour or more, trying to learn an unintelligible and uninteresting lesson.

In many schools the pupils will have to remain during several hours in the schoolroom in the vitiated air, cramped in their uncomfortable seats, without a chance to straighten out their aching limbs, and yet, common sense ought to teach any one, but the most stupid, that such methods are a direct violation of Nature's laws, and will sooner or later exhibit their detrimental effects.

Then, too, the multiplicity of studies tends to bewilder the youthful mind, since

the brain in its delicate state of evolution is inadequate to the strain, and the result is overwork and a breakdown is to be expected sooner or later.

After a child has "passed" through all the grades in the common school and the parents are able to let it continue its studies, it enters the high school. Inclination for literary pursuits is not questioned, and the advisability of further strain on the already impaired physique or unbalanced mind is left unheeded by both parents and teachers as of minor importance.

It is little short of criminal to demand such courses of study to be pursued by the boys and girls during their most trying periods of life. Looking over the great variety of subjects, you will find that more than one-half of them will be of absolutely no use whatever in their future life as men and women, and you are astonished at the stupidity of such boards of education and teachers prescribing such courses. The powers that be are not satisfied to let it remain a high school, which is already exceeding the limits of safety, but are striving to make a college out of it. Their intentions may be laudable, but the absurdity of the thing is simply stupendous. It is easy to prescribe, but difficult to achieve, and this is especially true of such efforts. To burden the high school pupil with a college course is bad policy and a burden on the community as well, as it requires a great number of teachers. Still it may work good by being economically insupportable by the community, and as the last straw will break the camels back, so this continual increase of complexity of studies with consequent additional taxes on the people for teachers etc., will bring the unforeseen reaction in that the people, being unable to bear the burden of the exorbitant school taxation, will revolt against this costly overeducation and take the matter into their own hands. Thus the present absurd methods and requirements may prove a blessing and a cure of the malady. It is dangerous to touch people's pockets too deeply. People are slow in discerning

losses in the physical or mental states of the race and careless about the future consequences of an existing evil, but on the "qui vive" as to their material possessions.

The knowledge obtained is and can only be superficial, and comparatively little can be retained. The receptive mind is not able to retain or digest this great variety of dry facts stuffed into the brain. Can any man or woman present any valid reason why the high school pupil should be required to study four or five different languages, and can any one believe that the boy or girl will be proficient in any of them? Not one in ten of the high school graduates can use the English language correctly, to say nothing of the others. Moreover, what use can the average boy and girl have of knowing French and Greek, for example, in their future strife for daily bread, or in the raising of their offspring? Or will higher mathematics and philosophy assist them in regaining lost health and destroyed mental equilibrium?

Are the board of education and school instructors with their abnormal system of education safe guardians for the future man and woman? The answer must be, emphatically, no! This educational intemperance can but have vicious results, as will be evident in the near future.

Look at the high school boys. Are they such as you would like to see young America? Converse with them and you will find, that in their belief, they know all that is worth knowing and that their wisdom surpasses that of any person living or dead. You will soon find out that your ideas of life are obsolete and yourself a backnumber. They are too wise to take advice from their parents and betters, and nothing is of value that is not agreeable to their notions. Civilization has certainly taken a step to produce them, but a step beyond the limits of common sense. Still, they are not themselves to blame, they are simply the product of vicious education.

Is the high school girl your ideal of the future housewife and mother? Mentally surcharged as she has been during her most

delicate state of evolution into a woman, you find, not a healthy bud blossoming out into a lovely rose, with life and energy in every fiber, but a hot-house plant, unable to withstand the vicissitudes of this world, an hysterical being with inaccurate and fanciful ideas of life and deficient in common sense, with morbid desires and frequently perverted sexual propensities. She is a stranger in her natural sphere of usefulness, and unfit for the duties she is expected to perform as a woman. Possibly she is an intellectual prodigy, but more frequently a physical invalid. The vigor and vivacity is eliminated from her physique and you find it supplanted by an anaemic, irritable, and languid being, entirely foreign by nature to a young woman.

The responsibility for such a state of affairs lies with the school boards and educators, and more remotely with the fathers and mothers themselves, who have it in their power to elect the guardians of their children. What is being done for the school children with regard to their physical wellbeing? Very little or nothing. Pedagogues seem to believe that mental culture is the only thing that is of importance in their profession as educators. The fact is that physical culture is equally important, and both ought to go hand in hand. The old adage "Sana mens in corpore sano" is still applicable with as great force as ever and can not be ignored without serious results. As long as the Greeks observed this rule, that nation was invincible physically and mentally, but as soon as the necessity of physical development was disregarded, both their intellectual and physical greatness vanished.

Now, educators ought to know that the nervous system of a child will soon tire and that mental fatigue is easily induced, but also, that under favorable circumstances it will easily recuperate. The logical conclusion of this fact is that the school day should be divided into several periods, with from ten to fifteen minutes recess between each. There should be at least two recesses in the forenoon and one in the

afternoon. The recess should be utilized by outdoor sports and games in which the instructors should take part and see that each child joined. It often happens that a child, that most needs exercise and recreation, keeps at a distance from the others in their sports, either on account of lack of courage or of vital energy. Such a child should be encouraged by the teacher, and sometimes a good deal of coaxing is needed to make it join the rest in their merry games and lively sports.

Besides the recesses there should be set aside at least half an hour every day for gymnastic exercises. Every teacher ought to know as well how to instruct in gymnastics as in any other subject in which thorough knowledge is required. Not only should the teacher be able to instruct in gymnastics, but should also try every way to make it interesting to the children. No apparatus is required for school gymnastics, and the Swedish or Ling system is admirably suited for this purpose. If the educators would follow such a course of education, they would soon find that the children would be both healthier and brighter and that more could be learned with less strain than under the present methods.

Then, another injustice, and at the same time a danger to the growing child, should be eradicated, namely, the present awkward seats, which the child has to occupy during five to six hours a day, very often in a cramped and uncomfortable position. The seats should be adjustable to suit the size of the child.

The hygienic care of the children is all but desirable, and how can it be otherwise under the present management, in which the medical profession has little or nothing to say? Of course the new school houses in our large cities are a step in the right direction, but the village school house is in the same primitive condition that it was fifty years ago. Ventilation and uniform temperature as well as proper light are far

from perfect as yet. But this is not all that ought to be improved. Medical school inspection is yet in its infancy and, although the system has proved a blessing in the few large cities in which it has been introduced, it is far from receiving the popular favor that it deserves. The medical school inspector should be as important an officer as the school superintendent. Every city should employ a sufficient number of medical school inspectors whose duty it should be to look to the hygienic care of the children, make regular visits to the schools and have such children, as are suspected of being afflicted with any ailment, be brought before him for inspection, and those in need of medical advice should be sent home for treatment by the family physician. In this way not only would epidemics be prevented, but also many children, unable to bear the strain of school education on account of some chronic ailment of one kind or another, could then be brought before the medical advisor and treated before irreparable damage had been done to the enfeebled constitution of the child. Errors of refraction and other ocular troubles should be corrected. The eyesight of every child ought to be tested once or twice a year by an oculist. Aural infirmities should receive a similar attention.

Unless a radical change is instituted in the present method of education in favor of the physical wellbeing, there is grave danger to be expected for the future welfare of the American nation. There ought to be a law enacted that no school should be allowed to keep the children in the school room more than one hour at a time without a recess. Also, the physical development and hygienic care should receive the same consideration as mental culture. Nature is patient, but continual transgression of her laws will be terribly revenged sooner or later. The sooner the educators will wake up to this fact, the better it will be for the salvation of the future of the nation.

DIET, OR SOME PHASES OF IT THAT OUR FOREFATHERS DID NOT HAVE TO MEET.*

BY W. J. EDDY, M. D., SHELBYVILLE.

This paper is not intended to outline a system of diet for any people or race of people, but to call attention to some objectionable features that are creeping into our system of diet under the guise of easily digestible foods, that from a theoretical standpoint may contain the elements that nature requires but practically are a detriment. I refer to those widely advertised food preparations such as shredded biscuits, protose or vegetable meat, grainose, nutose and a host of other oses, biscuits, flakes, crackers and other cereals that go to make up a large list in the dietary of many of the widely advertised bills of fare. There is not a greater piece of humbuggery practiced upon mankind that is forced upon a susceptible public by these manufacturers. The idea of building up the system and keeping all organs up to a natural strength by a process that does not allow certain organs the exercise requisite for developing strength is preposterous. This of itself should condemn this method of feeding. Any organ to become strong must have a certain amount of exercise to enable it to acquire strength, so the stomach and digestive organs to become strong enough to perform their proper function in the economy of life must be given exercise that will develop them to the highest degree of strength. One of the failings of man is that he thinks he could give to the Creator of the Universe a few points that would be of value to him in regard to the creation of this or any other of his many worlds. Man wants to improve on nature's laws instead of complying with them.

A great many of our so-called aides to nature are a direct hindrance, and again a great many things that would benefit man

and help nature are from misuse made to injure him. If we would have healthy men and women we must teach them to eat food that produces health. At the rate things seem to be going now in a few generations eating is likely to become a lost art. The pleasant hour spent over a good square meal may be a thing unknown. Chemists are using their greatest ingenuity to so condense a full meal that it can be put in a tablet and a week's rations carried in the vest pocket, and at each meal time swallow a tablet with a single gulp and go hurrying about their work. This may seem all right from their theoretical standpoint, but the Creator in constructing this wonderful mechanism called man placed therein a digestive apparatus that he expects to be used and while we may compel nature to do our bidding for a while she will bring sorrow upon us for our folly. Nature has placed before us our foods in their simplest form the same as she has for the rest of the animal kingdom, and the nearer we use things as she designed, the greater amount of enjoyment and labor we may accomplish. There is a vast amount of the vegetable and mineral kingdom necessary for man's greatest good that have to pass through another kingdom before it is fit to enter this complex organism of ours. The animal kingdom transposes much of this crude material into suitable provision for us and no chemist has yet been able to prepare anything to take its place. Starting with the child we can find nothing to equal the mother's milk, yet by constant study and variation a child can be brought up by artificial means. It was thought that when sterilized cow's milk came into use it would help simplify the matter of artificial feeding of infants, but when we see scurvy, rickets and all that class of ailments that follow we are compelled to say that that is a failure and my experience is that no single baby food that is manufactured is fit to keep a child on continuously. As soon as a child comes to twelve or eighteen months of age, it is the duty of the parent and physician alike to see that the little fellow is fed so as to develop

*Read at the Fiftieth Annual Meeting of the Illinois State Medical Society, Springfield, May 15, 1900.

all his muscles and organs alike. Here comes in the careful administration of the mixed diet. It would not do to keep him in a cradle until old enough to walk and then expect him to get up and walk at once, neither is it common sense or in accordance with the law of nature to keep him on baby food until he is able to work and then expect him to take solid food enough at once on which to do a day's work. As physicians we find that a great many of our stomach troubles of later years have their beginning in improper feeding during childhood. Starting with a mixed diet as soon as the teeth are fairly well through the gums we should teach him to use the teeth that they may become firm and hard. Give him a crust of bread to masticate; it is excellent for both teeth and stomach. It is a fact noticed particularly in the old world among the poorer classes that people who live on soups and gruel and the like, soft foods, known as spoon victuals, never accomplish the work that those do who live on even the coarsest bread and a little meat and vegetables. If the child is brought up on a good mixed diet, it will strengthen digestion and promote development. Who among us has not felt sorrow at seeing the pinched features, bloodless lips, weakened system and actual thwarting of development of the children of many that try to carry out these erroneous ideas, such as Mrs. Rorer, Mrs. Ralston and a great many other persons who put themselves forward as criterions on this subject advocate. I have been surprised and pained at the teaching of the Battle Creek, Mich., Sanitarium. They send out expert cooks and lecturers besides large quantities of literature advocating a system of diet that if followed out will wreck any laboring man's system. The prepared foods that theoretically may contain the elements of the natural foods are devoid of nourishing properties. The preparation kills the vitality of the food.

They make one compound that is particularly obnoxious to me, and I have seen some very bad results from its use. Its a mixture of nuts ground up together, called

nutose. I don't think it is fit to put in the human stomach. They claim it to take the place of the fats and meats. It could never take the place of a good beef steak in my mind and costs fully as much. Shredded biscuits is another preparation that a patient of mine came near starving to death on before I found out just what the trouble was. Some one of their lecturers had told her to eat it as other food was injurious. She tried it until she became so weak she could hardly walk, and it was only by close questioning that I got her to acknowledge that she was trying to follow the Battle Creek Sanitarium idea of diet. She said she knew it would kill her to take solid foods, they had told her so. I very soon convinced her of the wrong, and had her eating a full diet of meats, vegetables and everything the markets afford that is good, and in three months I had one of the handsomest, rosy cheeked, happy young ladies in the State. This is only one instance of numbers that I could cite. I have seen farmers try to follow this fanatic teaching until they completely broke down and sent for the doctor only to be told to eat a good square meal.

If grown people will starve themselves what can we expect them to do for little helpless children. I have seen many a child stuffed full of medicine, mostly homeopathic, I am thankful to say, when a piece of bread and meat would do them more good. The brawn and brains of this country, the men that made it what it is, were brought up on the coarse, substantial food just as nature turned it out, it gave them a good healthy digestive apparatus, and that made muscle and brain.

This great prepared food cry is nothing but an advertising scheme, and as physicians we should put our stamp of condemnation on it so hard that it would have to die out, and not recommend it as I know of many physicians doing.

Doctor: Make your calculations to attend the annual meeting at Peoria, May 21, 22 and 23.

SLIGHT AILMENTS.*

BY L. L. LEEDS, M. D., LINCOLN.

It is the custom of most of those who write articles to be read before the State Medical Society, to take up some subject or some disease that is seldom seen by the country practitioner and in fact but little interest to most of the country practitioners, because they see but few cases of that character and when they do see one, a specialist is generally sent for and the patient probably removed to some hospital where they can be under the care of the specialist. Very few country practitioners take the responsibility to operate for appendicitis, they may be well qualified to do so, but are not prepared. The surroundings at the home of the patient are not suitable. It is impossible to have everything aseptic. The nursing of the patient is far from being good, consequently a conscientious physician will recommend the patient to go to some hospital or sanitarium where such operations can be performed and such care can be given as will almost insure a perfect success.

Cases of uterine fibroids or cancers and various other ailments are frequently discussed in our medical societies, but the country practitioners have but little to do in the care and treatment of such cases for, as before stated, such cases are recommended to go to some sanitarium where they are better prepared and have better nursing.

A large number of cases that come under the care of the country practitioner are what we might term slight ailments and I must say that some of those cases are difficult to eradicate, causing great uneasiness to the patient as well as to the physician in charge. Unless immediate relief is given, the patient will become dissatisfied

and the physician disappointed and thoroughly disgusted with practical professional work. The physician will be expected to fully explain how many a slight ache or pain is caused—you must fully explain the cause and give relief or the patient goes to another doctor. You must endeavor to satisfy the mind, you must understand the nature of slight ailments and know how to relieve them.

It is expected by the country practitioner that the physician in charge of hospitals, the out-patient department and the public dispensaries are well prepared to give the best treatment for those slight ailments and it is to them that we look for the desired information, especially in our State Medical Society where physicians from our largest hospitals and public dispensaries are or should be in attendance. It is to them that we look for the best treatment in such cases. Unfortunately for the country practitioner, our medical journals say but little about the various slight ailments or their treatment, but on the contrary, fill their journals with accounts of intricate and difficult surgical operations and of some real or imaginary complications of disease that is successfully treated for three or four weeks and then that grim monster "death" enfolds the patient in his cold and leaden arms. I am impressed with the belief that three-fourths of our patients that we are called upon to treat are afflicted with what we may safely call slight ailments and they expect and demand as much attention (though not for as long a period of time) as those affected with a more serious form of disease. In the severe form of disease we have, in all of our journals, the latest and best treatment given and the country practitioner carefully reads the various treatments there recommended and together with his own skill and judgment, he carries the patient safely through. With our cases of slight ailments, we are often at a loss to know what is best to give, what will relieve the quickest, and we peruse our medical journals, hoping in them to find assistance—but alas, alas—we look in vain.

*Read at the Fiftieth Annual Meeting of the Illinois State Medical Society, Springfield, May 16, 1900.

The Illinois Medical Journal

PUBLISHED MONTHLY.

Official Organ of the Illinois State Medical Society.

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The Society does not assume responsibility for any statements or opinions published in this journal.

Entered at the Postoffice at Springfield, Ill., as second-class matter.

Springfield, Ill., March, 1901.

PERNICIOUS LEGISLATION.

A circular letter signed by the Legislative Committee, has been sent to every member of the State Society urging prompt action by writing to the members of the Judiciary Committee of the Senate, requesting this Committee not to recommend Senate bill number forty-eight for passage. This bill was introduced into the Senate by Senator Geo. W. Stubblefield of Bloomington and aims to amend the Medical Practice Act approved April 24, 1899, so as to exempt everyone from the effect of that act who treats by massage.

Anyone of discernment will see that this is a step in a backward direction and will nullify the section relating to osteopaths and others of that class who must pass an examination in at least several branches of medicine. This will allow magnetic healers, masseurs, christian scientists, faith healers and others who will combine the laying on of hands with mental and spiritual means.

We would urge immediate action by all who have the best interests of legal medicine at heart and who desire that the great State of Illinois shall press forward in the

domain of medicine rather than to countenance a backward step, and thereby foster the horde of bloodsuckers and charlatans who will attach themselves upon the people. A step in the right direction would be the repealing of that portion of the paragraph that allows mental and spiritual healing, and which is now being attempted by the legislature of various states. Popular demand will soon force such legislation in this State for the newspapers teem with so many cases of people being neglected and allowed to die without the slightest scientific help having been extended, that popular indignation and condemnation will compel the necessary enactments. W.

N. B.—Since the above was written by Dr. Weis, Bill No. 48 has been killed in committee, thanks to the efforts of the Legislative Committee. K.

DANGER IN HEALING HOBBIES.

Hans Carstensen, a resident of this city, died on Monday, without medical attention, at the home of his daughter and son-in-law, who are of the faith of "Dr." Dowie. The newspaper reports of the case state that he asked for a doctor, and that one of his daughters went so far as to call a physician to go to the house, but the doctor was refused admission by the Dowie disciples.

Julius Rades, another resident of Chicago, is reported to be at the point of death and raving in delirium, without medical attendance because his wife, who is also a convert to Dowieism, refuses to allow a physician to be called.

From New York come almost daily astonishing tales of the follies of Christian Science that are being brought out in the trial of the Brush will case. In several states—notably New York—bills before the legislatures to amend the medical prac-

tice laws are bringing to light the tremendous growth and strength of the class of healers who practice without medicine.

All these facts serve to direct attention to the great dangers to the public which exist in the growth and unrestrained operation of "natural" healing systems.

The influence of the mind over the body is undisputed. The blush of shame, the pallor of fear, the quickened heart beat of excitement, and the exhaustion of despair all show to what a large extent the physical functions can be influenced by the mental conditions. Nothing is more conducive to good health than cheerfulness, and few things are more harmful than worry. Undoubtedly, proper mental influence can accomplish much for health.

Thus, all mental healing systems, whether in the guise of religion or not, may have possibilities of widespread good if properly directed. It is, in fact, an encouraging sign of the times that a reaction is taking place against the old methods of exclusive reliance on the knife and drugs. But the reaction may easily go too far.

As long as mental healing is confined to hygienic psychology or to theories of living, the public can have no complaint to make. But the danger lies in the difficulty of stopping at this. The many absurd tenets contained in such doctrines as Dowiesism and Christian Science—built up originally about a few natural laws—when carried to their legitimate conclusions result in disease and death to individuals and great danger to communities.

It is well enough to say that drugs are harmful when a finger is cut, but to refuse a doctor to a dying man is criminal. It is all well enough for Christian Scientists to say that matter does not exist when

a person is suffering from a slight headache, but to carry the theory to its logical conclusion, and to stop eating on this account—as attempted some time ago by a prominent South Side society woman—is insanity, and results in death.

It is a growing problem before the law-makers of this country to say where the good ends and the harm begins in "natural" healing. But the line must be drawn, and drawn soon.—Inter Ocean.

THE PLACE OF MEETING IN 1902.

Already several cities, among them Rock Island and Quincy, have made application for the meeting of 1902. It is to be hoped that a number of cities will apply and that a stimulating and healthy rivalry will be engendered. Just now when the Society is having a rapid growth, the place of meeting is very important, and the city expecting to secure the prize should be represented by a large number of its representative medical men, who should come prepared to show distinct advantages in hotel facilities, places of meeting and ease of access from all parts of the State. The Society has suffered in the past by selecting cities lacking in one or all of these items, and as it grows in size should exercise the greater care. It may not be amiss to state that all signs point to a large attendance at the Peoria meeting. Without doubt it will be the largest and most important meeting of medical men ever assembled in this State.

The Committee of Arrangements have secured large and commodious quarters in a quiet part of the city. The hotels are commodious and comfortable. The railroad facilities of Peoria are exceptionally good, and the profession of the city will be united and cordial in their welcome.

K.

Correspondence.

Resolutions passed by the Adams County Medical Society, Quincy, Ill., Feb. 11, 1901.

Whereas, the Adams County Medical Society is one of the oldest medical societies in the state of Illinois, having recently passed the 50th year of its existence, and

Whereas, the city of Quincy, of Adams County, being the 3d city in number of its inhabitants in the state of Illinois, and not having had the honor of entertaining the State Medical Society at one of its annual meetings for 18 years, therefore be it

Resolved, that this Society and its members use all honorable means to induce the State Medical Society to hold its meeting in the year 1902 in this city, and be it

Resolved, that a committee of three, one of whom shall be the Secretary of this Society, shall be appointed by the President of this Society, and shall be empowered to act toward the accomplishment of this object. Be it further

Resolved, that these resolutions be spread on the minutes of this Society, and a copy of the same sent to the Chairman of the Publication Committee of the Illinois State Medical Journal with a request that they be published in the issue of said Journal for March, 1901.

BILLS NOW BEFORE THE LEGISLATURE.

During the coming week the Legislative Committee will issue the following circular to all members of Local Medical Societies in the State of Illinois.

Jacksonville, Ill., March 1, 1901.

Dear Doctor: We would like to call your attention to the various bills now before the Illinois Legislature, which should be of interest to the medical profession. Every physician should be thoroughly informed as to legislation now pending.

We would like to have you read these outlines of bills very carefully. Your representatives in the legislature will be glad to have your opinion regarding them. The committee at a recent meeting decided that the profession should give their support to these measures, and see that they are enacted into law. We would be glad to receive any suggestions which you have to make in regard to these measures.

MESSAGE.

We would first call attention to Senate Bill No. 48, which was introduced by Senator Stublefield and referred to the Judiciary Committee. This bill through the efforts of the Legislative Committee and the profession of the State, has been reported unfavorably and is effectually killed.

LOCAL BOARDS OF HEALTH.

The second bill is Senate Bill No. 122, introduced by Senator Chapman of Vienna, and referred to the Committee on County and Township organization. This bill is of special importance to the nineteen counties of the state not now under township organization, but is also of importance to other counties as well. It has already been reported favorable. The bill reads as follows:

"For an act to create and establish boards of health in counties, not under township organization, and in townships and counties under township organizations—outside of the corporate limits of incorporated cities and villages.

Section 1. Be it enacted by the People of the State of Illinois represented in the General Assembly: The board of county commissioners in counties not under township organization and the supervisor, assessor and town clerk of every town in counties under township organization, shall constitute a board of health, and on the breaking out of any contagious or infectious disease in their county or town, or in the immediate vicinity thereof; it shall be their duty to make and enforce such rules and regulations tending to check the spread of the disease within the limits of such county or town, as may be necessary; and for this purpose they shall have power to shut up any house or place where any infected persons may be, and cause notices of warning to be put thereon, or remove such person to any pest house within the limits of said county or town, at the expense of the party so moved,

if he be of sufficient ability to pay, or, otherwise, at the expense of said county or town: Provided, That nothing in this act shall apply to any territory lying within the corporate limits of any incorporated city or village: Provided, further, That in case the board of health of any county not under township organization, or of any township in counties under township organization, shall fail, refuse or neglect to promptly take the necessary measures to preserve the public health, or in case any such board of health shall refuse or neglect to carry out the rules and regulations of the state board of health, that thereupon the state board of health may discharge such duties and collect from the county, or township, as the case may be, the reasonable costs, charges and expenses incurred thereby.

Section 2. The said board of health shall have the following powers:

First. To do all acts, make all regulations which may be necessary or expedient for the promotion of health or the suppression of disease.

Second. To appoint physicians as health officers and prescribe their duties.

Third. To declare what shall be a nuisance and abate the same.

Fourth. To provide gratuitous vaccination and disinfection.

Fifth. To require reports of dangerously communicable diseases.

Sixth. To require reports of deaths, with such correlative facts as the interests of the public health may necessitate, to issue burial permits, and to regulate and control the removal, interment and cremation of dead bodies in cases where the disease is communicable.

Seventh. To regulate cemeteries within their jurisdiction.

Eighth. To incur the expenses necessary for the performance of the duties and powers enjoined upon the board.

Section 3. Any person who shall violate, or refuse to obey, any rule or regulation of the said board of health, shall be liable to a fine not exceeding \$200, for each offense, or imprisonment in the county jail not to exceed six months, or both, in the discretion of the court.

All fines collected under the provisions of this act shall be paid into the county treasury of the county in which the suit is brought, to be used for county purposes, and it shall be the duty of the state's attorney in the respective counties to prosecute all persons violating, or refusing to obey, the rules of said local boards of health.

Section 4. The clerk of the board of county commissioners, or the town clerk, as the case may be, shall keep a full record of all the doings of said board and report the same to the annual meeting of such board of county commissioners, or town board.

Section 5. The members of said boards of health shall be allowed, for their time spent in the performance of their said duties, each the sum of \$1.50 per day, which, together with

all bills by them contracted and all sums of money by them expended, shall be audited and paid in the same manner as other county and town expenses.

Section 6. Section one (1), two (2) and three (3) of Article XIV of an act entitled, "An act to revise the law in relation to township organizations," approved and in force March 4, 1874, and all acts or parts of acts conflicting herewith are hereby repealed."

PHYSICIANS' BILLS.

The third bill is Senate Bill No. 142, introduced by Senator Dr. Wm. F. Harris of Ferris. The point of interest in the bill introduced by Dr. Harris is that physicians' bills for last illness are placed in the third class instead of the fifth class, as is now the case. The clause of the bill of interest to physicians' is as follows: "expenses attending the last illness, including physicians' bill in the last illness of the deceased, and demands due common laborers or household services of deceased for labor." The physicians' bill not in the last illness of the deceased still remains in the fifth class. This bill is of practical interest to every physician, and we trust the Senator will receive your encouragement and support.

EPILEPTIC COLONY.

The fourth bill is Senate Bill No. 162, introduced by Senator Henry Andrus of Rockford, and referred to the Committee on Appropriations. We quote the title and first section of the bill as follows:

"For an act to provide for the location of the Illinois State Colony for Epileptics in the town of Grand Detour, in Ogle County, for its organization and management, and making appropriations therefor:

Section 1. Be it enacted by the People of the State of Illinois represented in the General Assembly: That the Illinois State Colony for Epileptics be, and is hereby, located in the town of Grand Detour, in Ogle County. The provisions of an act entitled, "An act to regulate the State Charitable Institutions and the State Reform School and to improve their organization and efficiency," approved April 15, 1875, in force July 1, 1875, and all general statutes governing the State Charitable Institutions, their trustees, officers and employees are hereby made applicable to the Illinois State Colony for Epileptics, except as otherwise provided by this act."

After providing for the detail of organization the bill further appropriates \$356,-

000 for the establishment of this institution and its maintenance until the next session of the legislature. This is an exceedingly important measure; one which should have our hearty support as physicians. We all know that it is not just for the Epileptics to be cared for by the ordinary institution of the insane. The great State of Illinois can well afford to provide a Colony for these unfortunates.

VITAL STATISTICS.

The fifth bill, to which we call attention, has been framed by the committee in response to a large number of letters from medical men in various parts of the state, suggesting that Illinois should no longer be behind in the matter of vital statistics. In response to this oft repeated suggestion the committee has endeavored to frame a bill which will be a safeguard in the matter of disposing of the dead, and at the same time collect in the various counties in the state useful statistics as to deaths and births. Believing that this is one of the most important, if not the most important, measures before the legislature, we quote it in full as follows:

1. It shall be the duty of every physician and midwife in the State of Illinois, who attends the birth of a child to report said birth within thirty days after its occurrence to the County Clerk of the County in which the birth takes place.

The report shall be made on the blank forms prescribed by the State Board of Health and shall contain such information concerning the child as may be directed by the State Board of Health in resolutions, copies of which will be printed on the back of the blank form aforesaid issued by the State Board of Health. When no physician or midwife is in attendance, then it shall be the duty of the parent, or in case of disability of the parent, of the householder to report the birth in the manner aforesaid.

2. Every physician, midwife, parent or householder, who shall comply with the foregoing provisions shall receive for each report of birth made in the manner directed and on the blank forms furnished by the State Board of Health, the sum of twenty-five cents. The county clerk shall certify to the county treasurer at the end of each quarter the number of births reported to him, giving the name and address of the persons so reporting, and payment for the services shall be made by the county treasurer, to said person, provided that no duplicate report shall be paid for.

3. No person shall inter, cremate, deposit in a vault or otherwise dispose of any human body, until he has received a permit so to do, as herein afterwards provided, which permit shall bear date when issued, shall state the name of the deceased, the date and cause of death, the location of the cemetery in which the interment will take place, the name of the person to whom the permit is issued and the name of the attending physician, midwife or coroner, and shall be signed by the official by whom it is issued.

4. The following persons shall issue permits for the interment, cremation, deposit or other disposal of the dead bodies of such persons as die within their respective jurisdiction, viz: the county clerks of counties not under township organization; the town clerks in counties under township organization and the clerks of incorporated cities and villages: Provided that in any county not under township organization, the Board of County Commissioners is hereby authorized to divide the county into districts not exceeding six in number and to appoint in each district an agent of said Board of County Commissioners, who shall be empowered to issue and sign such permits. Provided further that the duties herein devolved upon city and village clerks may be performed by the secretary or registrar of a legally appointed city or village board of health, and Provided further that neither the county clerks nor the agents aforesaid shall issue permits in cases of deaths occurring within the jurisdiction of incorporated cities or villages.

5. Such permits shall not be issued until there shall have been delivered to either of the officials aforesaid a satisfactory certificate of death made in the manner directed and on the blank forms prescribed by the State Board of Health, by a legally qualified physician or midwife, or by the coroner of the county in which such death occurred.

6. It shall be the duty of the physician or midwife last in attendance upon the deceased, if any there was, to sign the certificate herein before required, stating the primary and secondary cause of death according to the best information he can obtain, and giving such correlative facts as may be required by the State Board of Health in resolutions, copies of which shall be printed on the back of said certificates. If there was no attending physician or midwife or if the certificate of the attending physician or midwife cannot be obtained within forty-eight hours after the death has occurred, any physician employed for the purpose by any of the officials herein authorized to issue permits for the interment, cremation or other disposal of dead bodies, may after due investigation prepare and sign a certificate of death such as is required of the attending physician.

7. Any death coming under the supervision or direction of the coroner shall be by him

reported to the clerk of the county, township, village or city in which the death occurred or to the local board of health of such city or village as the case may be, in the manner directed and on the blank forms prescribed by the State Board of Health, and it shall be the duty of the coroner to disinter any body buried without the permit herein before required, and to hold an inquest on said body, and within three days thereafter to report said death in the manner aforesaid to the proper official.

8. It shall be the duty of the clerk of the township, city or village, or of the city or village board of health or the district agent to forward at the end of each month to the county clerk of the county in which such township, city, village or district is located, all certificates of death presented to said clerk, district agent or board during the preceeding thirty days.

9. Every clerk of a township, city or village, or of a city or village board of health, and every district agent and secretary or registrar of a city or village board of health who shall comply with the provisions of the preceeding sections, shall receive for each permit issued and proper certificate of death forwarded to the county clerk, the sum of twenty-five cents, provided that but one payment of twenty-five cents shall be made for the issuance of a permit and forwarding a certificate and provided further that the clerk of a city, or city board of health, or the secretary or registrar of a board of health in cities of fifteen thousand or more inhabitants, shall receive no compensation other than their salaries for the duties required by this act. The county clerk shall certify to the county treasurer at the end of each quarter the number of certificates of death forwarded to him, giving the name of the official so forwarding, and payment for the services shall be made to such official by the county treasurer.

10. The county clerk of each county shall record in the manner directed by the State Board of Health, all certificates of birth and death delivered to him pursuant to law and shall file such certificates in his office. The record of such certificates shall at all times be open to the inspection of the public without fee. Each county clerk shall also during the first ten days of January, April, July and October of each year render to the State Board of Health in the manner directed by said Board, a full and complete report of all births and deaths reported to him during the preceeding quarter.

11. The State Board of Health shall prepare such forms for certificates of births and deaths as it may deem proper, and shall deliver said forms to the county clerks of the several counties, whose duty it shall be to furnish such certificates to physicians, midwives and coroners: Provided that in cities and villages the local board of health or the city or village clerk as the case may be, may prepare certificates of death in form similar to those issued

by the State Board of Health and furnish the same to physicians and midwives.

12. Any person or persons who shall violate the provisions of this act shall be deemed guilty of a misdemeanor and upon conviction thereof, shall be fined not less than ten nor more than one hundred dollars, or shall be imprisoned in the county jail not to exceed thirty days or shall suffer both fine and imprisonment in the discretion of the court.

13. All fines collected under the provisions of this act shall be paid into the county treasury of the county in which the suit is brought, to be used for county purposes, and it shall be the duty of the state's attorney in the respective counties to prosecute all persons violating or refusing to obey the provisions of this act.

14. All that part of Sections 4, 5 and 6 of an act entitled an "Act to Create and establish a State Board of Health in the State of Illinois, approved May 28, 1877, relating to reports of births and deaths, and all acts or parts of acts in conflict with the provisions of this act are hereby repealed.

15. This act shall be in force on and after the first day of January, 1902.

CORONERS TO BE PHYSICIANS.

Sixth is House Bill No. 305; introduced by Mr. Loy, and referred to the Committee on Judiciary. We quote the bill as follows:

"For an act to amend Section one of an act entitled, "An act to revise the law in relation to coroners," approved February 6, 1874, in force July 1, 1874.

Section 1. Be it enacted by the People of the State of Illinois represented in the General Assembly: That Section one of an act entitled "An act to revise the law in relation to coroners," approved February 6, 1874, in force July 1, 1874, be amended to read as follows:

Section 1. That every coroner shall be a licensed physician, and shall be commissioned by the governor, but no commissions shall issue except upon the certificate of the county clerk of the proper county of the due election or appointment of such coroners, and that he has filed his bond and taken the oath of office, as hereafter provided.

TITLE OF DOCTOR.

Seventh is House Bill No. 235, introduced by Representative Jones of Cook county, and reads as follows:

"Be it enacted by the people of the State of Illinois, represented in the General Assembly; that it shall be unlawful for any person within the limits of this state, either for a valuable consideration or without any charge or remuneration thereof, who shall represent and hold themselves out to the public or who shall by hand bills, cards, signs or other forms of written or printed advertisements, claim and re-

present themselves to be a physician or surgeon and use the title of M. D., or Dr. or any title which shows or tends to show that the person using the same is a practitioner of any of the branches of medicine in this state; or who advertises under names other than their own without having first obtained a license to practice medicine, under the laws of this state, shall upon conviction thereof, shall be fined not less than \$100.00 nor more than \$500.00; or be imprisoned in the county jail not less than three nor more than twelve months, or both, in the discretion of the court.

SANATORIUM FOR CONSUMPTIVES.

Eighth is House Bill No. 339, introduced by Mr. Rankin of Warren, and referred to the Committee on State Charities. Considering the far reaching importance of its provisions this bill is probably one of the most important now before the legislature. Its provisions are at once both charitable and sanitary. It proposes to take the consumptive patient from his unsuitable home surroundings and place him in a Sanatorium for treatment. The effect of such act is very far reaching, and we feel sure that the profession of the State will take active interest in this exceedingly important measure. We quote the bill in part as follows:

"For an act to provide for the location, erection, organization and management of a state sanatorium for persons afflicted by tuberculosis, and making an appropriation for the purchase of land, and the construction of the necessary buildings and the maintenance of the sanatorium.

Section 1. Be it enacted by the People of the State of Illinois represented in the General Assembly: Creates a State Sanatorium. That there is hereby established a state sanatorium for the care and scientific treatment of persons afflicted by tuberculosis, to be known as "The Illinois State Sanatorium." The provisions of an act entitled, "an act to regulate the state charitable institutions and the state reform school, and to improve their organization and increase their efficiency," approved April 15, 1875, and all general statutes governing the state charitable institutions, their trustees, officers and employes are hereby made applicable to the Illinois State Sanatorium, its trustees, officers and employes.

Section 2 provides for an appropriation of two hundred thousand dollars (\$200,000) with which to purchase an appropriate site and erect appropriate buildings.

Section 3 provides for a board of three trustees to be appointed by the governor; not more than two of whom shall be of the same political party, and one of whom shall be a physician.

Section 4. Management of the Sanatorium—Superintendent—Powers of appointment of resident physician or physicians—Consulting physicians. The said sanatorium shall be under the immediate management and control of a superintendent to be appointed by said board of trustees, and removed by said board of trustees when just cause for removal exists, whose salary shall be fixed from time to time by said board. Said superintendent shall be a graduate in medicine and surgery from some medical college, recognized as in good standing by the State Board of Health; and of acknowledged skill in his profession, and must have had experience in the treatment of tuberculosis in hospital, sanatorium or extensive private practice. He shall appoint all subordinate officers and employees, except as hereinafter provided with the assent of the board of trustees, and may discharge any subordinate for cause, by a written order stating such cause, and delivered when practicable to such subordinate. The resident physician or physicians shall be nominated to the board of trustees by the State Board of Health, and be selected by competitive examination, held by said State Board of Health, annually. The candidate or candidates passing with the highest grades being nominated to the board of trustees of said sanatorium, and elected by them to the position of resident physician; such resident physicians being subject to the authority and the control of the superintendent, as in the case of other subordinates or employees; and their duties shall be to perform such medical duties in and about the care of the patients in the sanatorium as such medical superintendent may direct. The resident physicians are subject to the same rules of discharge as other subordinates and employees.

Section 5. The board of trustees shall appoint, annually, two consulting physicians, citizens of Illinois, engaged in active practice, and known to be skillful diagnosticians and therapeutists, whose duty it shall be to visit the sanatorium whenever necessary, to examine and classify patients, supervise their medical care and treatment in the capacity of consulting physicians, and observe the general conduct of the institution, in order that they may make suggestions to the board of trustees for the improvement of the efficiency of the institution in the care of patients. The salary of a consulting physician shall be fixed from time to time by the board of trustees.

Section 6. Patients. (Their classification and Admission.) The superintendent and consulting physicians shall formulate such rules as they deem advisable, regulating the admission of persons afflicted with tuberculosis to the Illinois State Sanatorium, keeping in view the fact that in the early stage the disease is curable, and that the greatest good to the state is derived from the restoration to health and to their families the dependent sick; therefore, the cases of incurable tuberculosis should be cared for in a separate institution, but perhaps on the same site; the said rules of admission to be approved by the board of trustees. The

charges for the support of the inmates of the said institution, as are of sufficient ability to pay for the same, or have persons or kindred, towns or cities, bound by law to maintain them, shall be paid by such inmates, such persons or kindred, towns or cities at a rate to be determined by the trustees of said sanatorium.

All persons, citizens of the State of Illinois, who shall be admitted to the sanatorium, and are indigent, shall be given medical care and board at the expense of the county of which they are residents.

Section 7 provides that a site shall be selected by the board of trustees and a committee of three members of the State Board of Health, and the president of the State Board of Charities. The remaining sections of the bill provide for the proper plans and specifications for securing appropriate buildings.

CONSUMPTIVES IN PENAL INSTITUTIONS.

Ninth is House Bill No. 190, introduced by Representative Bowles of Joliet, and referred to the Committee on Sanitary affairs. Its object is to isolate consumptives of the various penal institutions of the state. The committee has suggested that its provisions be extended to all the State Institutions, as well as Alms Houses in the state. The bill as presented reads as follows:

"For an act to amend an act entitled, "An act to create and establish a Board of Health in the State of Illinois," approved May 28, 1877, in force July 1, 1877, amended and in force April 21, 1899, by adding thereto a new section to be numbered 19.

Section 1. Be it enacted by the People of the State of Illinois represented in the General Assembly: That an act entitled, "An act to create and establish a Board of Health in the State of Illinois," amended and in force April 21, 1899, be, and the same is hereby amended by adding thereto a new section to be known as section 19, which shall read as follows, to-wit:

Section 19. It shall be the duty of all public institutions, penitentiaries, reformatories, workhouses and other penal reformatory institutions now being maintained in the state of Illinois, wherein human beings are confined against their will for any purpose, to maintain a separate hospital ward, exclusive for the purpose of, and to be used for the purpose only, of all persons so confined, who may be suffering from the disease known as tuberculosis, or commonly known as consumption, and that such person, or persons, shall not be permitted to occupy any other ward other than the one herein provided for, and it shall be the duty of the keeper, or the person, or persons, in charge of such penitentiary, reformatory, workhouse, or public institution, to enforce the provisions of this act and to maintain the same out of the general funds appropriated for such

penitentiary, reformatory, workhouse or public institution.

And any keeper, person, or persons, in charge of any penitentiary, reformatory, workhouse, or public institution, violating any of the provisions of this section, shall be deemed guilty of a misdemeanor, and shall be liable to a penalty, not less than \$25 and not to exceed \$200.

BOARD OF HEALTH APPROPRIATION.

Tenth is Senate Bill No. 167, introduced by Mr. Chapman, and referred to the Committee on Appropriations. We quote that part of the Appropriation Bill which refers to the appropriation for the State Board of Health as follows:

"Forty-stventh—To the State Board of Health, for salary of secretary, the sum of \$3,000 per annum; for necessary office expenses, including expenses incurred in attending meetings of the Board, for making sanitary investigations, and for the purpose of investigating the cause and preventing the spread of such contagious and infectious diseases as tuberculosis, typhoid fever, diphtheria, scarlet fever, influenza and malaria fever, the sum of \$3,000 per annum; for chief clerk, \$1,800 per annum; for clerks, \$1,200 per annum; for stenographer and typewriter \$1,000 per annum, and for incidental expenses the sum of \$300 per annum.

Also the sum of \$10,000 per annum, to be used only with the consent and concurrence of the governor, on the recommendation and advice of the Board, in case of the outbreak, or threatened outbreak, of any epidemic of malignant diseases, such as smallpox, yellow fever, Asiatic cholera, and typhus fever, to defray the expenses of preventing the introduction of such diseases, or their spread from place to place within the state; to suppress outbreaks which may occur, and to investigate methods of their prevention; also special investigations, when required by the sanitary necessity of the state. This fund may be used also for the protection of human lives in times of disease and disaster beyond the relief of individual or organized charity.

Also the sum of \$25,000 for the necessary expenses incurred in the supervision and inspection of lodging houses in cities of one hundred thousand or more inhabitants.

We feel that every physician in the state should take an interest in the State Board of Health. It is one of the most important departments of the state, and more directly interests physicians than any other. In fact the State Board of Health relies largely on physicians for its support. It is the representative of the medical profession and strives to carry out their highest ideals.

We would respectfully ask that every

member of the medical profession carefully read these bills and be prepared to discuss them with practitioners, members of the legislature, and others who may be interested.

The committee will be glad to furnish you as many additional copies of this circular as you can use. We desire to distribute them widely, in order that the profession may be fully informed as to the matters now being presented to the legislature.

Very respectfully submitted,

Committee { Carl E. Black, Chairman,
 Jacksonville, Ill.
J. A. Egan, Springfield, Ill.
E. Fletcher Ingals, Chicago.

LEGISLATIVE COMMITTEE.

Below the Legislative Committee gives a supplementary list of physicians who have sent a dollar for the assistance of the committee in its work. The committee takes this plan of acknowledging the receipt of the various sums, and if any one who has sent a dollar does not find his name on this list, the committee would be glad to have him call their attention to the matter at once.

The committee wishes to thank the profession for the liberal way in which they have responded. While the amount already received is quite gratifying, yet the necessities of the committee this year are considerable; owing to the fact that the legislature is in session, and that some very undesirable legislation has been introduced which must not be allowed to become law.

We would take this means of asking that every physician show his interest in the welfare of the public, as well as his profession, by at once writing his Senator and Representatives about these matters. We are convinced from conference with members of the legislature, that no Senator or Representative will vote for a bill which is offensive to his medical constituents. Therefore, all that is necessary to secure proper legislation, or defeat improper legislation, is that the profession should

show their Representatives and Senators that they are actively interested. The Legislative Committee wishes to urge upon the profession the necessity of organized action in these matters.

Every Medical Society should forward resolutions to the legislature bearing on any or all bills in which the profession is interested. These resolutions coupled with personal letters will lead to success. The committee would respectfully ask that every member of a local Medical Society forward one dollar to the Chairman, Dr. Carl E. Black of Jacksonville, for the use of the committee in pushing this work.

The following is the supplementary list of those who have already paid:

- *T. J. Pitner, Jacksonville.
- A. B. Keyes, Chicago.
- H. W. McLean, E. St. Louis.
- *W. H. Sparling, Moweaqua.
- J. W. Evinger, Paris.
- *Edmund Andrews, Chicago.
- H. M. Starkey, Chicago.
- *J. R. Keefer, Sterling.
- J. F. Keefer, Sterling.
- C. J. C. Fischer, Carlinville.
- John A. Roinson, Chicago.
- T. W. Brophy, Chicago.
- *D. W. Graham, Chicago.
- *Denslow Lewis, Chicago.
- John A. Brown, Kankakee.
- Z. Roulean, Manteno.
- J. M. Gullick, Manteno.
- Dr. Beveridge, Buckingham.
- A. Kenaga, Herscher.
- John B. Hazel, Hoopeston.
- *Jos. Pogue, Edwardsville.
- *E. A. Morgan, Decatur.
- *T. L. Catherwood, Shelbyville.
- J. D. Whitley, Petersburg.
- Chas. E. Chapin, Bloomington.
- W. S. Jones, Redman.
- *H. N. Moyer, Chicago.
- J. R. Hoffman, Chicago.
- J. A. Koch, Quincy.
- *C. C. Hunt, Dixon.
- *Katherine Miller, Lincoln.
- *J. W. Hairgrove, Jacksonville.
- M. Lee, Atlanta.
- W. E. Rice, Tuscola.
- B. L. Riese, Chicago.
- *A. E. Prince, Springfield.
- Chas. J. Whalen, Chicago.
- Wm. Louis Rabe, Dwight.
- *H. Hatch, Quincy.
- J. P. Simpson, Palmer.
- C. S. Laughlin, Paris.
- D. D. Roberts, Paris.
- *M. O. Heckard, Chicago.
- W. A. Wiseman, Camargo.

County and District Societies.

The annual meeting of the Chicago Medical Examiners' Association was held Jan. 22, 1901, at the rooms of the Chicago Medical Society, the President, Dr. Denslow Lewis, in the chair. The minutes of the last meeting were read and approved.

A communication from Mr. J. G. Monihan in reference to the National Association of Life Insurance Examining Surgeons was referred to the executive committee. A paper on the "Relation of Deformities to Life Expectancy" was read by Dr. John Lincoln Porter and was discussed by Drs. Coolidge, Woley, Henry F. Lewis, Cotton, Stowell and the President.

Drs. Woley, Cotton, Royce, Coolidge and Schultz were elected to membership.

The following gentlemen were elected officers for the ensuing year:

President—Dr. Denslow Lewis.

Vice-President—Dr. James E. Stubbs.

Secretary—Dr. James H. Stowell.

Treasurer—Dr. J. Homer Coulter.

On motion, the association adjourned.

James H. Stowell, Secretary.

The regular quarterly meeting of the Jo Daviess County Medical Society met at Warren, Ill., Jan. 31, 1901. In the absence of the president, the society elected Dr. I. C. Smith president pro tem, and the roll of membership was called to which ten responded, together with the following visitors: Dr. W. E. Clay, Pearl City; Dr. Kreider, Lena; Dr. T. J. Clancy, Nora; Dr. Hillard, Warren, and Dr. W. S. Caldwell, Freeport.

Minutes of previous meeting read and approved, after which Dr. W. S. Caldwell, of Freeport, read a paper on "The Treatment of Pneumonia." (See page, 444.)

This paper brought a great deal of discussion, both pro and con, as to the ice treatment.

Dr. I. C. Smith then read a paper on the same subject, in which he showed various forms of treatment as practiced by many of the country practitioners.

Elizabeth was chosen for the next meeting. The Warren physicians then invited the society and visitors to an elegant banquet prepared at the Warren Hotel, to which all did ample justice. Adjourned to meet April 25, 1901.

D. G. Smith, Secretary.

Twenty Union county physicians met Jan. 22, 1901, at the city hall and took the preliminary steps necessary to the organization of a permanent medical association in the county. Those present were encouraged by the interest manifested and by the large attendance at the first gathering.

Dr. J. I. Hale was chosen temporary chairman and Dr. T. Lee Agnew, secretary. The following committees were appointed and they will report at the next meeting, when it is hoped to effect a permanent organization.

Constitution and By-Laws—Drs. J. J. Lence, of Jonesboro; W. E. Lingle, Cobden; and E. G. Earnhart, Mill Creek.

Program Committee—Drs. D. R. Sanders, Jonesboro; J. A. Hale, Alto Pass; W. H. Davis, Anna.

Invitation—Drs. L. D. Keith, Anna; J. L. Nusbaum, Jonesboro; B. F. Crabtree, Anna. This committee was instructed to invite the presence and co-operation of all regular physicians. There are about 42 in the county. The meeting will probably be held the last Wednesday in each month at the city hall. The next meeting will be held Wednesday afternoon, Feb. 27, at 2 o'clock.

The object of the organization will be the advancement of scientific work auxiliary to the State and National medical societies.

QUINCY MEDICAL AND LIBRARY ASSOCIATION.

Regular meetings occur on the second Thursday evening of each month.

Joseph Robbins, President... Quincy.
Chas. W. Rock, Secretary.....Quincy.

The following is a list of the active members, all of whom reside in Quincy:

Christie, R. J. Sr.

Christie, R. J. Jr.

Gill, L. L.

Hart, H.

Irwin, G.

Koch, John A.

Montgomery, E. B.

Pendleton, F. M.

Reticker, J. K.

Robbins, Joseph.

Rook, Charles W.

Tull, Frank E.

Vasen, Sarah.

Walker, F. J.

Wells, C. A.

Williams, W. W.

Woods, R.

Zimmermann, E.

Honorary Members.

Barr, G. Walter, Keokuk, Iowa.

Leightle, Geo. A., Plainville, Ill.

Rooney, Abby F., St. Louis, Mo.

Tieken, J. D., Piper City, Ill.

Wilson, I. T., Quincy, Ill.

At the regular monthly meeting, Feb. 11, 1901, of the Adams County Medical Society, the resolutions sent out by Dr. D. R. Brower, in the matter of the appointment of internes to the various state hospitals for the insane, were passed with the following amendments: First, to make the internships in question open to graduates of any medical college recognized as being in good standing, providing only that such graduates be residents of this state. Sec-

ond, to make the State Board of Health the board of examination for such appointments.

Dr. Germann read a paper on Endocervicitis. In this she discussed the gross and microscopic pathology, the etiology and the subjective and objective symptomatology. Her suggested treatment consisted of hot antiseptic douches, given with the patient in dorsal decubitus, notching of the cervix if it is contracted to allow free escape of mucus, and the application of Tr. Iodine or carbolic acid after preliminary curettage. She also recommended applications of a saturated solution of iodoform in ether.

Dr. Beirne then introduced the resolutions concerning the meeting place for the State Medical Society in 1902.

(These resolutions appear elsewhere in the Journal.)

Clinical cases were reported as follows: Drs. Johnston and Nickerson, a case of cholelithiasis. Dr. Center, a case of cholelithiasis. Dr. Beirne, a case of acute esophagitis.

Chas. D. Center, Sec'y.

The organization of the attending staff of Cook County Hospital for the ensuing term of two years, occurred Jan. 31, 1901. Dr. Denslow Lewis was re-elected president and Dr. L. Blake Baldwin was re-elected secretary. The Executive Committee appointed by the president consists of: Dr. A. R. Edwards, Chairman; Dr. C. F. Swan, Secretary; Drs. Quine, Herrick, Webster, MacKellar, Kearsley and the President and Secretary ex-officio. The staff is constituted as follows:

Surgeons.—Drs. Denslow Lewis, Charles F. Swan, Leonard St. John, Weller Van Hook, C. P. Stringfield, W. E. Schroeder, W. A. Kuflewski, J. B. Murphy, T. A. Davis, John Leeming, F. S. Hartman, E. L. Moorhead, A. I. Bouffleur, Charles Davison, S. L. Weber, J. W. Tope, D. H. Williams, A. P. Heinech, F. W. McNamara, O. W. MacKellar, D. N. Eisendrath, Frank Byrnes, Gerhardt Seim, J. P. Webster, A. E. Halstead, H. R. Hammond, R. A. Letourneau, T. J. Conley, M. J. Kearlsey, E. H. Lee.

Physicians.—Drs. Frank Billings, A. R. Edwards, J. H. Herrick, Charles C. O'Byrne, E. Fletcher Ingals, W. E. Quine, B. M. Linnell, John A. Robinson, Florence Hunt, T. A. Noble, J. F. Dolamore, A. E. Price, R. H. Babcock, R. R. Preble.

Pathologists.—Drs. L. Hektoen, W. A. Evans.

Dermatologists.—Drs. L. B. Baldwin, M. B. Sincere.

Obstetricians.—Drs. Effie L. Lobdell, Frank B. Earle.

Diseases of Children.—Drs. F. S. Churchill, Josephine A. Jackson, Wm. J. Butler, Isaac Abt.

Contagious Diseases.—W. L. Baum.

Ophthalmologists.—Drs. Allen T. Haight, J. C. Huizenga.

Nervous Diseases.—Drs. Sanger Brown, D. R. Brower.

Dental Surgeon.—Dr. Hart J. Goslee.

BRAINARD DISTRICT MEDICAL SOCIETY.

The mid-winter meeting was held in Mason City. Owing to the great amount of sickness at the time the attendance was very small.

Dr. C. A. Stone, of Mason City, was chosen as presiding officers in the absence of the president. The usual business was transacted.

Dr. Coppel, of Havana, contributed a brief paper on the pathology of lobar pneumonia, which in his absence was read by the secretary.

After brief comment on the usually accepted idea that the processes of lobar pneumonia are those of a true inflammation of the lung, he presented the theory of Dr. A. H. Smith, that pneumonia is not an inflammation, but that any depression, accompanied by an irritation sufficient to cause an exudation, favors the growth and multiplication of the diplococcus pneumoniae in the terminal air vesicles. The rapidity of growth and multiplication of the germ, together with the resistance of the individual, determines the limit of area involved. As the result of the entrance of the bacteria into the branches of the pulmonary artery the blood current ceases and a coagulum is formed. These processes going on in any other structure would constitute a true inflammation. In the lung, however, this does not obtain since the thrombosed vessels are not concerned in the nutritive processes. The bronchial arteries, branches of the thoracic aorta, which supply the lung with nourishment, are pervious as may be demonstrated by injection. This would account for the complete integrity of the area after resolution.

Where abscesses or gangrene occur Dr. Smith holds that the bronchial arteries have been involved and a true inflammation has occurred.

Brief discussion followed by Drs. Spear, Walker and Stone.

As other essayists were absent and had not sent their papers the remainder of the session was occupied with informal reports of cases.

All details as to the next meeting were left to the committee on program.

Katharine Miller, Secretary.

At a meeting of the Chicago Pathological Society, Dr. Maximilian Herzog, President of the Pathological Section Illinois State Society, gave a brief presentation of plans for the pathological exhibit at the American Medical Association to be held at St. Paul in June. Reviewing the interesting exhibit of the last meeting at Atlantic City, which was eminently successful and highly interesting to the visiting members, he mentioned the fact that the exhibit was largely representative of the eastern states, and that the classification related more to territorial collections of specimens than to a strict pathological classification.

At St. Paul, it is desired to perfect the classification more in keeping with the subject. Members of the society were called upon to lend a helping hand to the securing of typical specimens as well as interesting specimens of great rarity.

Dr. Evans added remarks that while he believed pathology had outgrown the period of mere exhibition of gross specimens and the arrangement at the last meeting of the American Medical Association having been largely of a state classification rather than scientific pathological classification, he was not favorably inclined to the innovation, but at the same time his school could be depended upon to furnish its quota of specimens and to add in the making of a complete exhibit to represent the work of the western states which certainly should equal that of the east.

Professors Hektoen, Le Comte and other leading pathologists of the Society concurred in the general opinion and expressed themselves as earnestly interested in the success of the exhibit at St. Paul.

It is desired that members of the profession throughout the State of Illinois take an active interest in the matter of preserving typical or rare specimens and presenting them, the packing and freight of which, both ways, will fall to the exhibitor; other expenses, care of specimens and arranging at the meeting will be borne by the society.

It is hoped that the society will vote a fund for the purpose of covering the expenses incurred by the pathological exhibitors, and the matter will come up for discussion at the next meeting of the Illinois State Society.

Exhibitors may correspond with the president of the pathological section, Dr. Maximilian Herzog, Chicago Polyclinic, Chicago, Ill., or send specimens with the name of the sender and operator on the label of the specimen.

Maximilian Herzog, President.

E. M. Sutton, Secretary.

The Will County Medical Society held the second meeting of the year Tuesday evening, in Joliet, Ill., Feb. 15, 1900, at the Society rooms, ten members being present.

The special business of the meeting was the discussion of certain bills now before the legislature concerning matters of interest to the Medical Profession, and regarding which the Illinois State Medical Society through its committee on legislation asks an expression of opinion.

The Isolation of Tubercular Convicts.

The idea of this bill is to do away with the custom which has prevailed in the penal institutions of the state where convicts mingle in the hospital and workroom with the other convicts both sick and well. It is proposed to provide a room or ward in the hospital, and where this is not possible, to provide a separate building where tubercular convicts can be isolated with the hoped for result of preventing the spread of tuberculosis and diminishing the death rate of the convicts from this disease. It was the opinion of the Society that this bill should pass.

State Sanitorium for Tuberculosis.

From information at hand the Society was unable to determine whether it was the inten-

tion to provide a state institution for the care of the indigent tubercular to be cared for at the expense of the state or whether the institution was to receive all cases of tuberculosis. In either event in the opinion of the Society it would be a step in the right direction.

The State Sanitorium for Epileptics.

It was understood that this bill provided for the establishment of a colony of epileptics similar to the Craig colony of New York State, and it was the unanimous opinion of the society that this bill should pass.

County Commissioners to Act as Boards of Health, Etc.

Regarding this bill the Will County Society is informed that it was proposed to create a board of county commissioners in counties not organized on the township basis as a board of health, in as much as every county should have a board of health empowered to discharge the duties pertaining to such a society, voted in favor of this bill.

Amend Medical Practice Act to Give the State Board of Health Power to Revoke Diplomas Issued Prior to 1899, "For Cause."

Pending definite information regarding this proposed bill the society instructed the secretary to ask for more details regarding it, and to bring the matter before the society at its next meeting.

Amend the Medical Practice Act so as to Eliminate the Christian Scientists.

The society voted unanimously in favor of this bill passing. The discussion of the proposed law for the "proper register of deaths" and concerning "Medico-Political appointments," was postponed until next meeting on account of the many applications for membership in the society from physicians residing not in Will county, but near by. Dr. Dougal's amendment to the constitution making such persons eligible to membership was passed. The amendment as passed is as follows: Art. 2, Sec. 9, Members of the regular medical profession residing in counties near Will county, and otherwise complying with the requirements are eligible to membership in this society.

In the new possessions of the United States of America, that have recently come under the protection of our flag, such as Porto Rico, the Philippines and the Hawaiian Islands, so-called tropical diseases are more or less constantly present. In Porto Rico and Cuba, yellow fever is common, in the Philippines the plague is raging, and one of the Hawaiian Island is almost entirely peopled by lepers; and in as much as our volunteer army of nearly 40,000 men are to be discharged and scattered broadcast over the country next summer, it was thought possible that cases of these diseases might develop here and there, and be unrecognized until too late for the most favorable treatment, consequently medical men unfamiliar with such diseases should familiarize themselves with the causes, symptoms and treatment of these ailments. In the furtherance of this idea Dr. Larned began

at the meeting Tuesday night a series of talks on the bacteriology of these diseases, the subject for the evening being the bubonic plague. Slides of the germ were shown under the microscope.

After the program, refreshments were served to the members and invited guests.

The society adjourned until March 12.

E. R. Larned, Secretary.

The regular monthly meeting of the Decatur Medical Society was held in the Elks Club Room on Thursday evening, Jan. 24, with the president, H. C. Jones, in the chair.

The Committee on Medical Legislation made the following report:

To the President and Members of the Decatur Medical Society:

Your committee to whom was referred the compliment of Dr. Carl Black, and inviting suggestions that might prove helpful to the State society have considered the questions presented. The general principal underlying this question they believe to be: that every member of the profession in the State in good standing should be glad to belong to the State society, as much in his own interests, as for that of the society. On the other hand, the State society can do nothing, cannot even exist without the members of the profession.

Your committee believes that thousands of medical men in the State, do not belong to the State Society because of the annual dues, and the expense of attending the meetings. Then there is the loss of business in addition. Many of our brethren are unable to afford this expense, while others who could conveniently do not consider it a wise expenditure to make.

Many of the men know they would never attend and when all is considered, do not believe it would pay them, whether it be a wise or unwise decision we do not pretend to have absolute knowledge of this, but it is our guess. Nor do we believe these men are destitute of proper feeling of professional fellowship toward their brethren of the profession, but that with all their cares, it would add immeasurably to their burdens.

Dr. Black believes the profession of the State is not solidly enough behind his committee to enable it to effect any important measures of reform.

We can only indulge the hope that our suggestions may be favorably received by the State Society and that it may help to remove the conditions complained of by Dr. Black. We hope that nearly every reputable member would join the society, if they could be taken in without any initiation fee or annual dues. They could then say they were members of this great medical society, and though they might never attend its meetings, the society could obtain their votes, either by the aid of postal cards, or through the officers of the local societies where these exist, when important subjects were being considered by the State society. The legislators could not then reproach Dr. Black's committee with the statement that

he represented only a small part of the profession of the State.

The members of the State society could be arranged in two classes; active members as now belong to it, and non-active members. The active members to continue as they have in the past, while the latter are to pay nothing unless they choose to attend a meeting when they might be required to pay, say two dollars for that year.

As the non-active members might be required to pay an initiation fee of one dollar, this to end their expense. If this plan were adopted, the amount so collected could be kept as a fund to cover the expense of communicating with these members when necessary to do so, to promote something that was expected to benefit the whole profession. Or these men could be given the medical journal at a low price, which of itself would make them a member of the society. It would be easy to determine who should be taken in because the official records of the State Board of Health furnish sufficient information for that purpose.

Your committee readily recognizes objections to this plan, which in a certain sense seems to give favors to some at the expense of others, yet that is not altogether true.

In order to accomplish certain objects believed to be for the benefit of the whole profession, as well as the city, the support of these men at present outside of the society is needed. Their aid and support to the aims of the State society is probably worth as much to the organization as their recognition by the society as members could possibly be to them in their respective fields of work.

We believe the plan to be practical though not here presented complete in all its details. If one of the great difficulties to the medical society of this State and others, be the lack of numbers dwelt upon by Dr. Black, we feel confident that it is possible to coroll five thousand medical men in one society in this State.

All of which is hopefully submitted for the consideration of the Decatur Medical Society, as well as the Illinois State Medical Society.

S. J. Bumstead, Chairman.

The report of committee was accepted.

Dr. Randall made the following resolutions:

Resolved, That the Decatur Medical Society strongly endorses Doctor Egan and urges his re-appointment as Secretary of the State Board of Health.

Resolved, That this resolution be spread on the minutes of the society and that a copy be sent to the Hon. Richard Yates, Governor of Illinois.

The resolution carried.

Dr. S. J. Bumstead had a very interesting paper on some facts in ophthalmology of interest to the general practitioner.

John T. Miller, Secretary.

Meeting of the Chicago Pathological Society, Feb. 11, 1901. Dr. L. Hektoen, President.

Dr. Thomas R. Crowder described three cases of osseous stylo-hyoid arch. The stylo-hyoid

arch is a constant structure in the higher vertebrates. In many, as the horse, cow and sheep, it is completely bony; in man it is largely ligamentous. Developmental defects with more or less ossification are not infrequently found, but complete bony arch is rare. The three cases presented were not recognized before death. The anomaly is to be looked upon as a developmental defect and not as an ossification of the stylo-hyoid ligament once developed in the normal way. It has no clinical significance beyond the possibility of fracture—an unlikely accident.

Dr. F. G. Harris reported a case of blastomycetic dermatitis in a woman seventy-eight years old. The growth was located on the gluteal region and commenced four years ago as a pimple, which became a roughened area of intense itching and later became apparently denuded. The growth was 11 centimeters long by about 6 centimeters wide, having an elevated border bearing flattened papillomatous outgrowths which overhung the floor, the latter being covered with villous-like epithelial projections interspersed with areas of ulceration. The entire growth was movable on the underlying tissues; there were no secondary growths on any part of the body, nor were there any evidence of syphilitic infection. Microscopic examination showed a hyperplasia of the rete mucosum which grew down into the corium in branching, coral-like projections. In these epithelial downgrowths were miliary abscesses containing the blastomycetic organisms which were present in groups of three or more. Many of them were in the process of budding. There were no cultures made from this case on account of the diagnosis not having been made clinically.

In the discussion of Dr. Harris' paper Dr. Lieberthal referred to a case recently observed, in which a provisional diagnosis of syphilis was made, where the blastomyces were found in sections. He still held to his original diagnosis.

H. T. Ricketts said that the histology of blastomycetic dermatitis is a specific one and entirely different from that of tuberculosis and syphilis.

H. G. Anthony spoke of the points of difference between blastomycetic dermatitis and the syphilitic and tubercular lesions resembling it.

L. Loeb called attention to the fact that blastomycetic dermatitis had not been produced experimentally.

W. E. Coates compared blastomycetic dermatitis to certain diseases in plants. He considers the organisms observed in the skin lesions as spores of fungi.

F. G. Harris stated that his case was treated with iodides for three weeks without any improvement.

Dr. Le Count demonstrated a diffuse secondary carcinoma confined to the lymph channels of both lungs of a man who died from carcinoma of the stomach while in the service of Dr. Kramps at the St. Elizabeth Hospital; the condition was correctly diagnosed during life. At

the necropsy, the usual large metastatic tumor nodules were found in the liver together with an extensive involvement of the peripancreatic, retroperitoneal, peribronchial and peritracheal lymph glands; the adrenals were the seat of a very extensive carcinomatous growth; there were small tumors in the outer parts of both kidneys. The primary tumor from which all these metastatic growths arose was located near the pylorus and showed no features other than are often observed in gastric carcinomata. The lungs were alike in appearance; both possessed very extensive subpleural, linear, branching and tortuous carcinomatous growths in the lymph channels as well as tumor masses in the lymph channels of the deeper parts of the lungs. There were no nodular growths in the lungs as are observed in consequence of the embolism of tumor cells. The lungs were fresh, no microscopic examination having been made, but the gross appearance supported in all its details, the opinion that a retrograde lymphatic metastasis had occurred in these channels from the lymph glands at the roots of the lungs.

Martin H. Fischer reported the results obtained from a study of the toxic effects of formaldehyde and its aqueous solution, formalin. The inhalation of formaldehyde is accompanied by marked inflammatory changes throughout the respiratory system. Dyspnoea, depression of temperature, tachycardia, weak pulse, and vomiting follow the introduction of formalin into the stomach. Sudden death may result. The severity of the symptoms and the degree of histologic disturbance bear no relation to the strength or quantity of the injected formalin. The gastritis is characterized by intense congestion, necrosis and leukocytic infiltration. Intraperitoneal injections produce a fibrinohemorrhagic peritonitis of varying intensity according to the strength of the solution. The peritonitis following chronic formalin poisoning produced by injecting small amounts of dilute formalin intraperitoneally, is accompanied by great connective tissue proliferation, and a striking eosinophilia. Subcutaneous formalin injections produce marked exudation and leukocytic infiltration. The introduction of formalin into the conjunctival sac is followed by an iritis, which when a single drop of the concentrated chemical is used may be sufficient to permanently injure the eye.

In whatever way formalin is introduced into the body, certain systemic changes result. Degenerative changes and focal necroses are found in the liver and kidneys. The leukocytic infiltration following the introduction of formalin is characterized by the eosinophiles appearing first; these are followed by the other polymorphs; last of all appear the mononuclears. It is believed that differences in osmotic pressure are to be held accountable for the exudation. The death of the cell is accounted for in two ways: (1) by disturbances in osmotic pressure and (2) by a deleterious chemical action—probably the reducing power of formaldehyde.

George H. Weaver, Secretary.

The Sangamon County Medical Society met in the county court room at 8 P. M., Feb. 11.

In the absence of the president, Vice President A. L. Brittin presided. The minutes of the previous meeting were read and approved. Applications for membership from Drs. George Bley, Jr., C. C. Patchen, Walter C. Bley and S. P. Hart were read and referred.

The application of T. W. Morgan having been favorably reported on, upon ballot he was elected to membership in the society.

A letter from Gov. Yates regarding the communication in reference to appointing medical internes in the insane hospitals, was read and ordered place on file.

Dr. R. D. Berry presented the subject of "La Grippe, or Epidemic Catarrh." Defined as a "specific self-limited epidemic fever characterized by catarrhal inflammation of the mucous membrane of the air passages, and in many cases of the digestive tract, by nervous symptoms and by extreme debility." It is ancient, spoke of the four outbreaks that had occurred. It may simulate almost any disease. It is a germ caused disease. Gave the differentiation from a common cold. This is highly contagious, rapid spreading affliction, one attack not procuring immunity from others. Mortality is said to be about 2 per cent. Children and old people seem to have least resistance to it. The great power for evil of this disease has been slowly recognized, not only immediate effect, but remote influences. Thought there were more deaths in the two years after the epidemic of 1890, from this trouble, than would have followed a visitation of cholera. Period of incubation is from one to four days, onset usually sudden, fever and aching characteristic; pain sometimes severe enough to require hypodermic of morphia. Bronchial and nasal symptoms nearly always well marked. Pneumonia is one of the most serious complications. Typhoid fever symptoms may be present. Throat conditions similar to diphtheria are sometimes seen. Nervous symptoms which may terminate in meningitis and encephalitis may occur.

Nephritis is quite common. Otitis media and catarrhal conjunctivitis are frequent complications. In fact any organ of the body is likely to be involved. The three diseases that may be mistaken for la grippe are cerebro spinal meningitis, typhoid fever and pneumonia. On account of the different types of the disease the treatment cannot be routine. Keep patient in bed until temperature is normal. A saline purgative at the onset, small doses of phenacetine with salol for aching, codeine for pain, for great weakness and threatened collapse strychnine and Cactina have been most beneficial, given liberally. Where vaso motor disturbance is also present belladonna is also used with benefit. During remission of fever quinine in moderate doses is useful. When nephritis threatens champagne is of special value as tonic and diuretic. When the throat receives the violence of the attack frequently a membrane is seen in the tonsils similar to diphtheria, but not diphtheria. This usually lasts three or four days.

This is most effectually relieved by use of the steam atomizer with some astringent medication. If an exudate forms swabbing with 1 to 2,000 bichloride solution is often effectual.

During convalescence a tonic is needed. Syrup. iodide of iron for children—cod liver oil. Diet throughout should be liquid or semi liquid. Only after convalescence is well established should it be gradually increased and made more liberal.

In the discussion of this exhaustive paper Dr. A. D. Taylor laid stress upon the importance of patients suffering from the grippe remaining in doors at least a week. He commended the combination of phenacetine and salol sometimes guarded with citrate of caffeine, and said that at times too much of the latter drug was given, increasing the restlessness and insomnia peculiar to the disease.

Dr. Paullen also approved of use of salol and caffeine. Had used sulphur with good effect in children's throats who would not submit to spraying or irrigation.

Dr. Fisher reported a case where the nervous symptoms were marked and peculiar. After the temperature became normal, patient was troubled with sudden flashes of heat alternating with extreme cold confined to one extremity at one time, but occurring in succession in both arms and legs. He thought it due to a vaso motor disturbance.

Dr. Munson referred to the membrane in the throat of grippe patients reported by Dr. Berry, and suggested the possibility of diphtheria complicating the grippe.

Dr. Shutt reported a case where bacterial examination proved this complication.

Dr. A. E. Prince spoke of mastoiditis arising in grippe originally in the mastoid cells, without previous infection of the middle ear. He regarded this as one of the most fatal complications of the grippe, and spoke of Senator Conkling's death from that cause. Dr. Prince recommended the use of a ten per cent solution of salicylic acid in alcohol as a local application in all inflammatory sore throats. He also recommended the use of chinosol as a local germicide. It may be used as a spray in the nose and throat in the strength of 1 to 4,000.

Dr. Berry, in closing, reiterated that the throat symptoms of grippe are various, and that there is no sore throat characteristic of the grippe. He believed the membranous sore throat he had seen in many cases of the grippe was not due to diphtheria because the cases all occurred in adults who are not very likely to have true diphtheria.

Dr. A. L. Brittin presented the subject of scarlet fever. Defined as an acute eruptive infectious and limited disease. Incubative period two to six days, invasion twelve to twenty-four hours, eruptive four to six days, desquamative three to six weeks. May be communicated any time, even from a purulent discharge from mucous surfaces. Complications are pleuro pneumonia. Otitis media frequently double, and nephritis most usual sequel.

Three distinct forms of angina are met with—erythematous, membranous and gangrenous. Early membranous sore throat is due to the streptococcus infection, late in diphtheria the germ being regularly found. The latter condition is scarlet fever complicated by diphtheria.

Gangrenous angina is seen only in the worst cases usually attended by asthenia, prostration and a fatal issue.

Diphtheria excepted, scarlet fever is more destructive to life, during infancy and childhood, than any other disease. Scarlet fever first appeared in America in 1735. The types now seen are milder than in former years. Epidemics of severe cases may succeed mild ones. Children and young adults are most frequent sufferers. Treatment should be along the line of elimination, stimulative and supportive measures. Care from the beginning will lessen chances of scarlatinal nephritis. Plenty of fluids is essential. Most valuable is hydrotherapy, promoting elimination, lowering temperature, and relieving the overburdened kidneys. Salt water injections into rectum are recommended where the renal functions are seriously impaired. Possibly some scientific investigator will successfully apply the principles of serum therapy to this disease. The laity should be educated that scarlatina is scarlet fever so far as danger to the patient and others is concerned, and should be regarded in every way the same. It is of vital importance in mild cases to examine the urine frequently. Renal symptoms frequently develop after convalescence seems established. No special treatment for the angina, each case treated as seems best. If diphtheritic, anti toxins will be indicated. Comby says: Scarlet fever is rare under three years, and after twelve years, common between three and nine equally in both sexes. Spring and summer furnish more cases. Deaths due to various complications of respiratory and buccopharyngeal cavity, gangrene, etc. Treatment should be hygienic, buccal antiseptics and cold bath for excessive temperature. Scarlatina poison may affect the kidney, only producing an acute desquamative nephritis. No other organ or function being affected.

Dr. R. D. Berry, in discussing this paper, said he dreaded scarlet fever more than diphtheria. Personally had had a sad experience with scarlet fever and mastoid abscess complication. Had recently seen several cases with diphtheritic throat complications. Spoke of the method of quickly and thoroughly acting on the skin by using ears of corn taken from boiling water wrapped in cloths and placed around the patient.

Dr. Joseph Brayshaw said he had never seen a good case of genuine scarlet fever. Have had the misfortune of seeing the sequelae and treating them, principally middle ear troubles.

Dr. A. D. Taylor believed that the diagnosis was of the utmost importance as it was by this means that epidemics were controlled. All complications are probably due to streptococci. The punctate eruption of mouth and papillae of tongue are very important aids in diagnosis.

Believed the hot packs just as efficacious in producing activity of the skin as ears of corn out of boiling water.

Dr. A. E. Prince spoke of the middle ear troubles following scarlet fever and often how very tedious they were. He had been quite successful in treating them according to the following plan: First, thoroughly cleanse the ear, then drop three drops of alcohol on the drum. Follow this by the use of 50 per cent solution of enzymole which digests the hypertrophied tissue dried by the alcohol.

Dr. Brittin, in closing, observed the great importance of correct diagnosis. Most rigid hygienic and quarantine measures in the mild cases. There being no further business, the society adjourned to meet March 11.

Dr. Margaret Taylor Shutt,
Secretary Pro Tem.

The Chicago Neurological Society had a regular meeting Dec. 21, 1900, with Dr. Hugh T. Patrick in the chair.

Dr. Church reported a case of polioencephalitis superior in a man 31 years of age. Married 5 years, no children. Cashier by occupation. Family history presented several cases of tuberculosis, otherwise it was negative. The personal history of the patient was also without notable incident and venereal history was denied. For several years, however, he had used alcohol and tobacco freely, working very hard, with short hours of sleep, but considerable out door athletic exercise.

Aug. 19, 1899, in a very hot sun played golf all day, without head covering. Forehead, face and scalp were severely burned and the hair bleached by the sun. On the second day thereafter he noticed dimness of vision in both eyes, was compelled to hold a book at a distance, and there was also a little double vision. Examination of the eyes by competent oculists failed to detect any trouble in the fundus. There was, however, a tendency to outward squint and some rigidity of the pupils. He was given mercury by inunctions.

Two weeks later he came under observation, showing a slight ptosis on the left side, outward deviation of both eyes, pupils rigid to light and accommodation. Headache, vomiting, dizziness and other subjective disturbances absent. Temperature, pulse, respiration, urine and blood normal. Showed a little tendency to over sleep and during the day would drop asleep while driving. Also struck others as being a little indifferent to subjects of ordinary interest and was indifferent as to the gravity of his condition. After 20 daily inunctions a slight amount of disturbance appeared in the gums and the mercury was discontinued.

On the 30th day after the onset of symptoms his speech was a little muffled and there was some incoordination when walking with the eyes closed. The tendon reflexes which previously had been normal, showed increase and there was a slight ankle clonus on each side. During the night he had had involuntary urination.

On the 31st day the divergent squint subsided, apparently through paresis of the external recti or involvement of the nuclei of the 6th nerve, and the pupils commenced to dilate. Vision for distance was still normal, but there was no accommodative capacity and the pupils responded to neither light nor accommodation. Static ataxia was decidedly pronounced. The temperature had a slight subnormal tendency. There was mental hebetude.

On the 32d day he was unable to stand, pupils were dilated at maximum, the eyes perfectly immobile, ptosis on both sides partially developed. Temperature commencing to ascend, reached 100.2. The next day double ptosis was complete, reflex excitability greatly increased so that the patient was almost tetanized as he lay apathetically in bed. Babinski noted on both sides. Temperature 101.2, pulse 129. Next day all conditions worse; some difficulty in swallowing. Coma most of the day. The following day temperature rapidly ascended to 108, with at the same time a falling pulse and he died after 24 hours of absolute coma.

Post mortem examination absolutely negative, except healed foci of tuberculosis in each apex about as large as a walnut.

Examination of specimens and serial sections made by Dr. Futterer show areas of more or less well outlined softening in the corpora quadragemina, pons, peduncles, internal and external capsule, principally upon the right side. The area in the external capsule involves the clostrum in its anterior portion with an upward extension to the lower level of the cortex. The lesions in the peduncles are confined to the lower parts and are small while others involve the nuclei of the oculomotoris, trochularis and abducens. Changes are decidedly inflammatory and blood vessels thickly surrounded by masses of leucocytes appearing in the midst of areas of degeneration. Here and there there is also well developed hyaline degeneration of the walls of the blood vessels.

Dr. Church called attention to the fact that a series of cases showing graduations between acute polioencephalitis and asthenic bulbar paralysis or myasthenia gravis could be adduced from experience in the literature and that in this case the sequence of events might perhaps be considered as follows: A tubercular lesion inducing some hyaline degeneration in the vessels, subsequently traumatism in the shape of sunburn, the action of toxic or infectious agencies producing inflammatory changes in an area of lowered resistance, and polioencephalitis with additional foci of inflammatory disturbance.

In the informal discussion which followed his paper, Dr. Church suggested the possibility of a series of pathological conditions in which polioencephalitis formed one end and myasthenia gravis the other. Dr. Sanger Brown thought that this could hardly be the case as the tendency of myasthenia gravis is towards recovery. Dr. Patrick agreed with Dr. Church and showed sections from a case which appar-

ently occupied middle ground between the two conditions mentioned. Dr. Patrick's sections through various areas of the cerebro spinal axis showed every where vast engorgement of the capillaries and possibly some early degeneration of cells, the case dying before further destruction had taken place.

Dr. Lodor presented to the society the results of studies in the haematology of neurasthenia, stating as follows:

The title neurasthenia would seem to cover a pathological condition far more widespread than the term itself might indicate. There is scarcely an organ or tissue in the body which does not show more or less deviation from the normal.

In taking up its haematology, facts appear which of themselves are confusing and contradictory. One of the first symptoms noticeable in neurasthenia is the evident anaemia, or if not anaemia, haemic change. In an able and suggestive article published in the Medical Record, June 25th, 1898, Mary Putnam Jacobi points out that many neurasthenics and also patients evidently anaemic, have a very high blood count and gives the history and count of several patients where the reds were over 5,500,000. One patient, a palid neurasthenic, had a red count of 6,660,000, whites 37,777. Following suggestions of S. Weir Mitchell, Dr. J. K. Mitchell has made a very careful and exhaustive study of many neurasthenics, finding a large per cent of them evidently anaemic, and yet with a blood count either normal or supra-normal. Such observers as Mitchell, Oliver, Cabot, Cheron Vigoroux have noticed and noted the changeableness of the red count owing to variation in the condition of the blood drop after massage, static electricity, etc.

It is curious that it never occurred to these careful observers to put together the results obtained by the various means of blood examination. No tissue of the body is so changeable or so changing, as the blood and before any fair conclusions can be drawn certain facts of its condition must be obtained, as:

1. Its specific gravity.
2. Chemical composition.
3. Rate of flow and calibre of vessels, including vaso motor control, as the red and white corpuscles do not move with the same velocity, the white tending to lag and stick against the blood vessel wall.
4. Temperature of the part furnishing blood for examination.
5. Number of reds and number of whites.
6. Haemoglobin value in color.
7. Bulk value of corpuscular elements as determined by the haematokrit.
8. Biochemical activity of cell as manifested by its ability to take up acid or alkaline staining reagents.
9. The age of the corpuscular elements, a point not practically discoverable clinically but bearing largely upon the condition of the patient and possibly discoverable by a priori reasoning, as I purpose showing subsequently.

10. Its bacteriology.

In experimental work done by Drs. John Holdam and J. Lorrain Smith, *Jour. of Phys.* 1894, P. 465, et., to determine the different capacities of red blood corpuscles, several data were obtained which aid in discovering the age of corpuscles. When blood is centrifugated, the heaviest corpuscles naturally are thrown to the periphery. These observers took specimens from this heavy outer layer of corpuscles and found that they had an increase of 20 per cent of oxygen carrying capacity over the layer near the centre of centrifugation. Size of corpuscles, according to their statements, in no way influenced oxygen carrying capacity. A still more interesting point was the fact that blood drawn from animals previously bled, had a higher oxygen capacity than that obtained before such bleeding. While such facts were noted, the evident conclusion was not drawn, namely, that the heavy corpuscles were the new ones and the light corpuscles with enfeebled oxygen carrying capacity, were old.

Premising so much, I turn to observations made 1st, in the examination of choreics and afterward carried on in neurasthenics. Patients coming into the examining room from an outside temperature below freezing, showed for some time a marked decrease in the solid constituents of the blood amounting not infrequently, to 10 per cent by bulk as shown by the haematokrit over readings obtained in former examination, not only this but apparently an increase in the proportion of reds over whites. When the patient was thoroughly warmed this discrepancy disappeared. Patients examined after Franklinization showed a decided increase in bulk of solids and number of reds over readings obtained before the electricity was used. Immersing the hand of a well warmed patient into cold water rapidly lowered the bulk of reds in circulation. From many examinations made, both in health and disease, it was found that cold uniformly lowered the bulk of solids in peripheral blood and increased the apparent quantity of reds over whites. On the other hand, warmth restored the balance and massage and electricity uniformly raised the bulk of solids above normal for the individual, thus giving a sway from the abscissa line 0 normal, to from 2 to 10 per cent below to 2.10 per cent above. A natural deduction would be that some attention should be given and allowance made in the blood count in patients with cold, clammy hands and extremities. The small size of blood vessels and the vaso motor construction seen in some neurasthenics may account for part of the apparent haemic disturbance. Furthermore, change of atmospheric pressure materially changes the number of reds as might be expected. A marked increase in the quantity of solids in the blood from a finger was always obtained by rotating the arm rapidly. Removal of a patient to an altitude causes reds to appear in greater number in peripheral vessels, so that the remarkable gain noted at times in the haemic condition of patients taken to

altitude may be and probably is factitious due to the altitude and not to an actual increase in the number of reds in the general circuit.

Going back to the study of the red blood column as shown in the haematokrit and studying it more in detail, there seem to be three areas in it in normal blood: a heavy area found at the periphery, a middle weight area in the centre and a lighter weight area at the proximal end of the clot.

I find that blood taken from these three areas varies much in its capacity to take up acid stains. The heavy blood from the periphery stains deeply and quickly and evenly with the acid stains. The middle area stains fairly well with acid stains and blood from the proximal end of the tube but slightly. There are certain other features of the blood from this last area which attract attention. The corpuscle itself is exceedingly lean, often times almost dumb bell shaped when on edge, and does not stain evenly. The cytoplasm is apparently pushed to an outside rim with cell wall collapsed and touching in the centre, the cell contents having lost almost all biochemic activity.

Putting the findings together namely, that in normal blood we have circulating red cells of every uneven value, and that some of them are heavy and stain well, that in an animal bled and allowed to recuperate we have a great preponderance of heavy red cells staining deeply and that in both instances the heavy cells have a greater oxygen carrying capacity, the conclusion would seem inevitable that these heavy cells are new or recently formed.

Applying these facts and conclusions legitimately drawn from these facts to findings in the examination of the blood of neurasthenics, it would appear possible to reconcile many statements apparently diametrically opposed. In all cases coming under my observation, there seems to be some haemic disturbance, no matter whether the case has as a basis, an auto toxæmia, a toxæmia as a sequel of preceding disease, or is apparently purely acquired or is of distinctly hereditary type. Each type may have some particularly prominent symptom, a sexual one, or gastric one, but be the type or special symptom what it may if the disease persists any length of time, there presently appears a condition of blood fairly constant and typical of the disease. The red may or may not be reduced in count, at times may be even above count, but the individual erythrocyte has undergone a change so that it resembles the cells in normal blood, which I have called for want of a better name—old cells. In many cells the cytoplasm in stained specimens seems pushed out to the periphery to such an extent that the cell becomes dumb bell shaped instead of the normal lenticular or biscuit shape. As a result the cells pack together closely and show a marked diminution in volume by the haematokrit. The oxygen carrying capacity is lowered and in consequence the haemoglobin is deficient in color test. The blood in neurasthenia then would seem to be poor in oxygen

carrying capacity and not only this but owing to the poor vaso motor control the peripheral blood at least varies much in its character. Time and again I have noticed the blood issuing from a puncture, not well mixed so that serum came first and then, apparently, a mass of corpuscles. Such findings lead at once to speculation. Certainly many cases of neurasthenia have some form of toxæmia as an underlying cause. The value of all means of hæmogenesis is at once apparent and if it were necessary, further proof is furnished for the value of massage, electricity and over feeding.

In the general discussion of Dr. Lodor's paper, Dr. Patrick wished to know what form of static current was used in the experimentation, the reply indicating that any form which produced skin irritation, but particularly the short spark, would produce the conditions as indicated. Dr. Dewey thought that any form of rubefaction would cause similar conditions to those mentioned in the paper. Dr. Sanger Brown extended the thanks of the society to the writer for original work done and said that while nothing new in the way of treatment was claimed, certain pathological conditions were happily explained.

Sydney Kuh, Secretary.

A regular meeting of the Chicago Neurological Society was held Jan. 11, 1901, Dr. Hugh T. Patrick, Vice President, in the chair.

Drs. D. R. Brower and H. Gideon Wells reported and presented specimens from a case of paralysis of the fifth to twelfth cranial nerves of the left side, of about twelve years duration. Death was due to angina pectoris. The paralysis had reached its full extent in the course of a few months and then remained perfectly stationary. A diagnosis was made of infranuclear paralysis due to a growth in the dura. Because of the history of the case, coupled with the occurrence of twelve miscarriages and a slight improvement under iodides the lesion was thought to be syphilitic. At autopsy a tumor, resembling somewhat a psammoma, was found in the dura, extending into the left petrous bone, which had pressed upon the paralyzed nerves at their points of emergence from the brain. Microscopically it was found to be a vascular endothelial tumor, derived from the endothelium of the perivascular lymphatics—a periendothelioma.

Dr. Sydney Kuh presented a case of syringomyelia with "cheiromegaly." The symptoms were almost entirely unilateral, there being a slight loss of sensibility to tactile stimuli on the right side of head, face and trunk, as well as the right arm, well marked analgesia and thermanaesthesia over a slightly smaller area on the same side with perverted temperature-sense in some parts and a similar disturbance over the left scapula. The right hand and forearm were like that of a patient suffering from acromegaly. The muscles of the forearm seemed somewhat hypertrophic but were distinctly weak.

In the discussion which followed Dr. Kuh's paper, Dr. Brower mentioned a case of acro-

megaly which died suddenly. One of the main points of interest in the case was the fact that a Gowers blood test showed 104 degrees of hæmoglobin. The patient was sent to the hospital the day of examination and died of pulmonary oedema. At post mortem the pituitary body was found enlarged. In a second case Dr. Brower gave thyroid extract and followed it by pituitary bodies. There was apparent subjective improvement. Death was caused by the grip. How much of the improvement in this case was due to suggestion, is an open question.

Dr. Barker said he was much interested in Dr. Kuh's paper and also in Dr. Brower's suggestions as there was certainly an intimate relation between the thyroid and pituitary bodies. Dr. Barker asked Dr. Kuh whether he looked upon the treatment of acromegaly by pituitary bodies as a substitution method or whether he believed acromegaly was due to a degenerative process. Dr. Kuh said treatment would indicate that a degenerative process was taking place and that the good obtained was by substitution.

Dr. Dewey asked if any systemic change took place during treatment. Dr. Kuh replied that there was no change in pulse or temperature.

Dr. Wells pointed out the fact that hypertrophy of an organ was not necessarily followed by hypersecretion of that organ.

Dr. Patrick asked if there was any change in the visual fields. Dr. Kuh said not.

Dr. Kuh closed the discussion by saying that the solution of organo-therapy was not so easy as it might seem. The substitution theory was the one generally accepted, but he had a case of myxoedema under observation which had been cured and stayed cured for years without further use of thyroid extract. Substitution would not account for the change being permanent.

Sydney Kuh, Secretary.

CORRIGENDA.

Wenzlick, William, 241 Dearborn ave., Chicago.
Shreck, J. A., Cameron, member of the Warren County and Military Tract Medical Societies; member of the State Medical Society.

Buckman, A. F., Warren, member of the Jo Daviess County and Illinois State Medical Societies.

Lewis, U. S., East Dubuque, member of the Jo Daviess County and Illinois State Medical Societies.

Eade, T. M., Stockton, member of the Jo Daviess County and Illinois State Medical Societies.

Simpson, J. P., Palmer, member of the District Society of Central Illinois and State Society.
McComas, G. U., New Canton, member of the Pike County Medical Society and State Society.

Schirmer, Alfred, 401 Marshfield ave., Chicago, member of the German Medical Society of Chicago and State Society.

Heckard, M. O., 1276 W. Madison st., Chicago, member of the Chicago Medical Society; member of the State Medical Society.

ILLINOIS Medical Journal

The Official Organ
of the
State Medical Society



A Monthly Bulletin
Edited by the
Publication Committee

Printed by

THE ILLINOIS STATE JOURNAL COMPANY.

Entered in the Springfield Postoffice as Second-Class Matter.

Volume L. New Series, Vol. II. Number 11.	Springfield, Ill., April, 1901.	{ Subscription, \$3 a Year. Single Copies, 25 Cents.
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FIFTY-SIX PAGES IN THIS NUMBER.

TABLE OF CONTENTS.

ORIGINAL ARTICLES.

Paralysis of the Sphincters of the Anus Caused by the Forcible Dilatation of that Orifice—Edmund Andrews, M. D., Chi- cago.....	483
Rectal Fistula—A. E. Halsted, M. D. Chi- cago.....	485
The Diagnosis of Rectal Diseases—J. Raw- son Pennington, M. D., Chicago.....	489
The Treatment of Hemorrhoids—N. H. Henderson, M. D., Chicago.....	493
Acute Hemorrhagic Encephalitis—C. D. Center, M. D., Quincy.....	499
What Shall the Harvest Be?—R. H. Henry, Peotone.....	503
The Medico-Legal Status of Abortion—O. B. Will, M. D., Peoria.....	507
The Treatment of Tuberculosis and Other Abscesses and Local Infections by Pure Carbolic Acid, with reports of cases— J. R. Walker, M. D., and G. W. Walker, M. D., Bluffs.....	511
Practical Observations on the Chemical Effect of a Few of the Older and Some of the Newer Remedies—E. L. Herriott, M. D., Jacksonville.....	513

EDITORIALS.

Appointment of Delegate to the American Congress on Tuberculosis.....	520
Announcement of Committee to Take Charge of Preliminary Meeting.....	520

New Trustees of the Eye and Ear Infirmary	520
State Board of Health.....	520
New Medical Societies.....	521
Medical Libraries.....	521
Collodion in Exophthalmic Goitre.....	521
The New Act Regulating the Practice of Medicine in Missouri.....	521
Called Down.....	522
The Surgeon of the Small City.....	522

CORRESPONDENCE.

Corruscations—A. C. Corr, M. D. East St. Louis.....	522
Brief Notes from the Pacific Coast—John H. Hollister, M. D., Chicago.....	523
Discussion on the Paper of Dr. Edlen— (March number).....	524

CITY AND COUNTY SOCIETIES.

Vermilion County Medical Society.....	527
Sangamon County Medical Society.....	530
Medical Society of Rush College.....	527
Chicago Pathological Society.....	529
Revised List of Members of Peoria Medi- cal Society.....	531
Northern Central District Medical Society.....	532
Marriages, Deaths, Changes of Address...	533
Calendar of Medical Societies.....	535
List of Officers of State Society.....	482

ILLINOIS STATE MEDICAL SOCIETY.

NEXT ANNUAL MEETING WILL BE HELD IN PEORIA,
MAY 21, 22, 23, 1901.

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The Illinois Medical Journal.

The Official Organ of The Illinois State Medical Society.

VOL. L.
New Series, Vol. II. }
No. 11.

Springfield, Ill., April, 1901.

{ SUBSCRIPTION
\$3.00 A YEAR.

PARALYSIS OF THE SPHINCTERS OF THE ANUS CAUSED BY THE FORCIBLE DILATATION OF THAT ORIFICE.*

BY EDMUND ANDREWS, M. D., CHICAGO.
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School.

It is erroneously stated that Simon of Heidelberg first introduced forcible dilatation of the anus in 1872. The fact is that as long ago as 1829, Recamier of Paris taught and practiced this operation for the cure of anal fissure. He dilated mostly with the fingers and thumbs, making traction outward in all directions in a rhythmic intermittent manner which he described by the term "cadenced dilatation." It is not clear that he ever introduced the whole hand. He was, however, fairly successful in curing fissure, but the absence of anesthetics at that early day resulted in intolerable pain to the patients and impressed his colleagues with the feeling that the plan was barbarous and unjustifiable, so that it soon fell into disuse.

A young surgeon named Maisonneuve of the same city witnessed Recamier's dilatations and gave the matter further consideration. Twenty years later, or about 1847 he revived the plan in a more forcible form. He inserted the whole hand into the rectum, and then closing the fist so as to enlarge its diameter to the utmost, he dragged it violently out. The harshness of the procedure excited a general condemnation and caused it to fall again into obscurity. Some twenty-four years later the thunder clouds of the Franco-German war rolled over France and involved the surgeons of Paris in a tumult which completely interrupted scientific research. However, at the close of the war, in 1872, a German of Heidelberg named Simon drew

attention again to the subject in a paper entitled: "The Artificial Dilatation of the Anus and Rectum for Exploration and Operation." Discarding the objectionable feature of the closed fist employed by Maisonneuve, he claimed that by compressing the digits into the form of a cone, any hand not over twenty-five centimeters (nearly ten inches) in circumference could be slowly inserted into the rectum "absolutely without harm."

The possessions of anesthetics and his own careful methods gave Simon great advantage over his predecessors and caused his plan to be looked upon with favor and to be adopted to some extent in the practice of every civilized nation. In fact there are men in Chicago and elsewhere who have even gone back to Maisonneuve's clenched fist, and have been perfectly reckless in the use of this operation. Allingham of London has done the same thing.

Extremes are mischievous. Many cases of permanent paralysis of the sphincters have occurred, and a number of deaths are already recorded from these forced dilatations. As usual, most of the accidents, but not all of them, have occurred in the hands of itinerants and other irregulars.

For some years I have been gathering up facts, and they are numerous enough to show that Simon's claim that dilatation by inserting a whole hand of nearly ten inches in circumference, is "absolutely harmless" is not correct. I have gathered accounts of seventy-six cases of paralysis of the sphincters with incontinence of feces following dilatation and lasting from several months up to an absolute permanency. I have also learned of seven deaths. The dilatations causing these disasters were effected in all sorts of methods, from the simple traction of the fingers to insertion of the whole hand and dragging out the clenched fist after Maisonneuve's plan, and the forcing in of large egg-shaped metallic bulbs, and

*Read at the Fiftieth Annual Meeting of the Illinois State Medical Society, Springfield, May 15, 1900.

the spreading of the blades of great forceps introduced for the purpose.

The danger of the operation does not depend wholly on the size of the hand or of the instrument introduced. The anus and rectum are in some patients very small congenitally. In others ulceration of the rectum has dangerously thinned its walls, cicatrization has contracted its diameter or epithelioma has rendered the tissues fragile and easily torn. In such patients the inserted hand or instrument has been known to burst into the peritoneal cavity with fatal results. I knew of one case where a rectal bougie eleven centimeters in circumference or less than half the size of the hand which Simon says is "absolutely harmless," caused the death of the patient. In another case a neighboring aneurism was burst with the same result. Other accidents also occur, which though not fatal, are still disastrous. Sometimes the sphincter is torn across beneath the skin leaving a permanent depression at some one point which can be felt from the surface, and the muscle is left partly disabled with fecal incontinence. In dilating with the fingers or thumbs, the surgeon can generally feel the giving way of successive muscular fasciculi at different parts of the circumference. This must permit the ruptured bundles to be drawn partly out from between each other, thus enlarging the circumference and weakening the constricting power. Apparently the most frequent accident is the rupture of numerous nerve fibres supplying the sphincters, causing permanent partial paralysis and sometimes chronic neuritis. Some authors advise forced dilatation in far too many cases. Certain quacks practice it for every sort of nervous disorder such as epilepsy, hysteria, locomotor-ataxia and neuralgia of distant parts. It has been done even for insanity. In France, Verneuil, Fontan, Gosselin, Monod and others strongly urge free dilatation with perilous energy.

In London, the celebrated and excellent rectal specialist, the elder Allingham, endorsed the French surgeons to the uttermost and advocated dilatation for almost

every operation about the rectum. He gravely gives the following dangerous directions to the dilating operation: "Continue to manipulate until the muscles feel reduced to a thoroughly pulpy condition, so that you can easily introduce the whole hand and even draw it out as a fist, * * * and paralysis of the sphincters is fully induced, and this condition will certainly last four or five days and possibly even more."

Forcible dilatation of the rectum by the insertion of the hand or of a large instrument is sometimes necessary for operative or diagnostic purposes, but it is useless to pretend that it is free from danger. Most patients will tolerate it without evil results, but not all of them. It should be resorted to only when the condition is sufficiently urgent to justify incurring an actual risk. All agree that a very large hand must not be inserted, but no author seems to say anything about a very small rectum. These cavities vary in size more than the hands do, and hence all rules of dilatation based merely on the circumference of the hand while taking no account of the size of the rectum are manifestly absurd.

The authors advocating the free insertion of the hand differ very widely in the admissible limits of its size as measured around its largest part. The following table shows their disagreement in the matter.

Circumference of hands which may be properly inserted into the rectum:

Authorities.	Centimeters.	Equiv. in inches
Simon, of Heidelberg	25	9 $\frac{7}{8}$
Weir, of New York	25 $\frac{1}{2}$	10
Kelsey, of New York	22 $\frac{3}{4}$	9
Maisonnette, of Paris, (cl. fist).	27	10 $\frac{5}{8}$

The clenching of the fist advised by Maisonneuve and Allingham adds about three centimeters to the circumference of the hand.

My conclusion is that there is no exact rule for the size of the hand which may be introduced and no way of determining what size of rectum will safely admit any particular hand. The insertion always involves a slight actual danger, and a large hand is more dangerous than a small one.

If we carefully weigh both sides of the question, we will readily agree to the following principles:

1. There are few internal disorders of such location and importance that they imperatively require the insertion of the hand for the purpose of diagnosis or treatment.

2. The case may be so important that the peril of omitting the exploration is greater than the danger of making it.

3. In that case the insertion should be made boldly though with care, but it should never be done where such urgent necessity does not exist.

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RECTAL FISTULA.*

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The term rectal fistula or rectal sinus should be employed only in the description of a suppurating channel opening at one extremity on the skin in the neighborhood of the anus and the other terminating in an abscess cavity in close proximity to the rectal or anal canal. This cavity may or may not communicate with the bowel and is always the result of infection from the rectum. Fistulous tracts communicating with abscesses having their starting point from some other pelvic organ or from the bony wall of the pelvis, even though they may communicate with the rectum, cannot properly be considered under this head. Furthermore, the term fistula presupposes a chronic condition and should not be applied to recent sinuses such as the tracts formed by the discharge of acute abscesses which many times close spontaneously as well here as channels of like origin do in other parts of the body.

It is fair to assume that all rectal or anal fistulae are the immediate result of an abscess which has formed within the walls or in close proximity to the lower bowel. The location of the abscess determines the character of the fistula. Thus an abscess above

the Levatores Ani, in the superior pelvic space, will give us a true sinus with the external opening at any distance from the anus. The internal opening, if one exists, is always above the sphincters and frequently high up in the rectum. These high rectal fistulae are rare excepting as a complication of stricture.

If the abscess develops in the Ischio-rectal Fossa, which is by far the most usual place, the pus will be directed in the majority of cases, by the anal fascia which forms the roof of this cavity and consequently the internal opening will be found at a point where the fibers of the Levator Ani with the anal fascia are inserted into the rectum. This corresponds to the point of approximation of the internal and external sphincters, in these cases the sinus may pass above or below the external sphincter, usually above.

The third variety of fistula, the one which Quenu considers the most common, is the subcutaneous or submucous resulting from suppuration in the anal wall below the external sphincter. The infection in these cases usually begins in the hemorrhoidal node somewhere near the mucocutaneous junction. Although this may be the commonest form of fistula, yet it is not the one most commonly treated by the surgeon, as in many cases the symptoms produced by this condition are insignificant and do not attract the patient's attention and therefore does not seek treatment.

All of these varieties may be either complete or incomplete, that is, have two orifices, one opening into the rectum and the other on the skin, or they may have but one and that may be either mucous or cutaneous.

The question of the relative frequency of complete or incomplete fistulae is still unsettled. It is generally admitted by all writers that incomplete internal fistulae are very rare. In Czerny's clinic of 61 cases operated, which were reported by Griffrath, only three internal incomplete fistulae were treated. The explanation of the infrequency of this form of fistulae is that if they are not treated within a short time they usually become fistulae, that is to say, they may be

regarded as the first stage of a complete fistula.

Incomplete external fistula is regarded by some as the commonest variety. In the cases treated in Czerny's clinic that have just been referred to, of the 61, 40 were incomplete external. This large proportion of external fistula has not, however, been found in the practice of other surgeons. Beck, in 37 cases treated, did not find one case of incomplete fistula, and many others have had the same experience. It is undoubtedly true that the internal orifice of a fistula may close at any time and thus convert a complete fistula into an external incomplete. In the early stages, however, the complete fistula is by far the most common. Another explanation of the supposed frequency of the external incomplete fistula is that in many instances the abscess cavity extends some distance above the point at which the rectal wall has been perforated and for this reason the internal orifice is not readily found and may be overlooked.

In passing a probe, particularly in the submucous variety, we frequently find the mucous membrane separated from the musculature of the gut for some distance, while the internal orifice is quite close to the anal verge, hidden in many cases behind a fold of the mucous membrane which renders its detection extremely difficult.

The external orifice of a rectal fistula may be found at any point on the perineum or on the skin of the buttocks at some distance from the anus. Its location is largely determined by the relation of the sinus to the various layers of fascia which assist in closing in the pelvic outlet. If the sinus is immediately underneath the skin or superficial layer of the superficial fascia it may open anywhere even on the inner side of the thighs or far out on the buttocks. If beneath the deep layer of the superficial fascia the length of the fistulous tract will be limited by the attachments of the fascia to the pelvic bones. In the majority of cases the external orifice will be found within an inch of the anus and posterior to a line drawn transversely through its center. Goodsall considers that there is a constant relation between the point of opening

of the fistula on the skin and its internal orifice. In those where the cutaneous orifice is posterior to this line the internal is in the posterior rectal wall; where it is anterior, the mucous orifice is directly above.

The appearance of the external orifice will in many cases enable us to determine the nature of the fistula. In simple non-tubercular fistula, the opening is usually found in the center of a depression which is the result of cicatricial contraction and immediately surrounded by a slightly elevated zone of granulation tissue. In the tubercular form the external orifice frequently opens on the floor of an ulcer which presents an irregular outline with undermined edges, the skin in the vicinity of the ulcer having a bluish tint with tubercles bordering its margin.

The tract of a fistula is seldom straight and frequently presents variations in caliber in different parts of its course. In many cases several sharp turns are encountered when we attempt to pass a probe. In others we find diverticula and pouches or secondary channels leading from the main tract. At times these open by numerous orifices on the skin of the perineum and buttocks. Ball records a case in which 22 cutaneous openings were found. These constitute the complex fistula of some authors. The explanation of this condition is simple; the main tract becomes temporarily occluded either by fecal matter or inflammation products and the contents of the abscess must find an exit in another direction, which is accomplished by establishing a new sinus. The so-called horseshoe fistula is simply two fistulae opening one on each side of the anus and both leading to a common cavity, usually situated behind the posterior wall.

The structure of a fistula varies with its age. In recent cases, shortly after the sinus is established, we find a channel only slightly indurated lined with granulation tissue, which bleeds easily if disturbed. In old cases the deeper layers of granulation tissue have become changed into fibrous tissue while that forming the innermost lining of the tube is flabby and presents a pale-gray appearance in contradistinction to the

bright red that is found in the more recent cases.

In tuberculous fistulae the wall of granulation tissue is thicker and there is not so much of a tendency for the cells of the deeper layers to progress into mature connective tissue. We also find localized dilatations of the tract forming small tubercular abscesses. In all, as time passes, the induration becomes greater and the chances of spontaneous recovery become less, chiefly because of the fibrous tissue preventing collapse of the tube.

The question of frequency of tubercular rectal fistula and of the coincidence of fistula and pulmonary disease, demands brief consideration. The first to recognize the simultaneous occurrence of rectal fistula and pulmonary tuberculosis was Jean Louis Petit (1675-1750). He also is credited with having made the observation that in those cases in which a rectal fistula was closed the patient would be attacked with pulmonary tuberculosis. This idea is still held by many at the present time. Of modern surgeons, the first to call attention to the relation between fistula and tuberculosis was von Volkmann in 1875, who observed in several cases fistula originating from tubercular ulcers of the lower bowel. Griffrath, in 61 cases from Czerny's clinic, found lung tuberculosis to be present in 10. In 7 others he was able to obtain a family history of tuberculosis. Hartmann, among 48 cases of fistulae operated upon, found 23 times undoubted signs of pulmonary tuberculosis. In 2, the personal or ancestral antecedents allowed the suspicion of tuberculosis. In 23 cases the patients appeared to be free from this disease. In the 48 cases operated upon only twice were tubercular ulcers of the mucous membrane of the rectum demonstrated. He considers that most cases of fistulae, in tubercular patients, have their origin from the anus and not from ulceration of the rectal mucosa. In 10 cases of ischio-rectal suppuration independent as far as could be determined of any rectal or anal lesion in which bacteriological examination was made, in 6 the pus contained tubercle bacilli. In 1, there was a mixed infection of tubercle bacilli, streptococcus and the

yellow staphylococcus; in the other 5, the tubercle bacillus was associated with the colon bacillus.

The high percentage of tubercular fistula and those associated with pulmonary tuberculosis which Hartmann's cases present, is not equalled in the practice of other surgeons. Allingham, with an exceedingly large experience in the treatment of rectal disorders, found only 14 per cent. of his cases of fistula to present any evidences of tuberculosis. In this country there are no records to show that the percentage is higher than Allingham found.

Other diseases, such as syphilis, particularly in the tertiary stage, where gummata are deposited and subsequently suppurate, may constitute the starting point of a rectal fistula. In two of Griffrath's cases, the patients were suffering from diabetes. Ischio-rectal actinomycosis has also been demonstrated to be the cause of rectal fistula in a case reported by Poncet. In a case of rectal actinomycosis treated by the author in 1896, numerous sinuses opened upon the perineum about the anus which closely simulated tubercular fistula.

The literature of the treatment of rectal fistula dates from the beginning of the practice of the art of healing. The various methods which have been employed from the earliest time may be classified as follows: 1. Methods designed to promote healing without laying open the fistulous tracts, there are: (a) Cauterization; (b) compression; (c) subcutaneous division of the sphincter ani externus; (d) curettage with packing the fistulous tract. 2. Division of the tissues between the fistula and the rectum is accomplished; of these we have: (a) Simple incision; (b) ligature; (c) excrasement; (d) galvano-cautery.

The treatment of fistula by cauterization was practiced in the earliest time. Celsus advised the use of cauterization injections particularly in complex fistula or when the depth of the sinus forbade the use of the knife. Later in the middle ages this method was generally employed. In modern practice we find it still advocated in the class of cases in which Celsus considered it indicated. Of its utility, at the present

time, it may be said to be the method most-ly employed by traveling specialists. In regular practice its use is limited to recent simple submucous fistulae or in cases where for any reason operative treatment is contraindicated. The methods of application of cauterizing chemicals to fistulous tracts will be found fully described in any modern work on rectal diseases. It may be said in favor of this method that it is devoid of danger, only slightly painful and that it will effect a cure in a certain number of cases. Against it, that it is uncertain and is not to be depended upon in long standing cases or where there are multiple fistulae presenting numerous irregular channels.

Compression was intended to prevent the entrance of fecal matter into the fistula. To accomplish this, foreign bodies were introduced into the rectum. Colombe employed a hollow cylinder of ebony or rubber.

Piedaguel, a linen bag filled with charpie. Attempts to carry out this plan were made with difficulty and only in rare instances were followed by success, consequently it was soon abandoned.

Mayer suggested subcutaneous division of the external sphincter as a means of treating fistula. The finger was passed into the rectum and an incision made close to the anal margin; the knife was then passed on a grooved director and the sphincter divided from within outwards.

Extirpation of fistulae was described and practiced by Celsus. He operated by passing a flat ground probe into the fistula and out through the anus. Traction being made so as to bring into view all of the tissues thus included. The fistula was excised by making two lateral incisions, one on each side of the director. This method was also employed by Cheselden, La Faye, Pallas and others of that time, who advocated the use of a broad polypous forceps, one blade passing into the rectum and the other in the fistula; all of the tissue grasped was then excised with scissors. This operation was popular particularly among French surgeons, but the results following were in many cases loss of sphincteric control, excessive scar formation or death from sepsis.

Partial excision, consisting of laying open the sinus, with removal of the granulations, fibrous tissues and skin tags, was advocated by Emmert and practiced by Petit, Fallopi and Sabatier. The operation of incision alone was practiced by Hippocrates and was commended by Galen and his pupils because of the speedy cure which usually followed. Galen used a curved probe-pointed knife with a single cutting edge.

During the middle ages these radical methods were lost sight of. The prestige of the operative treatment was quickly restored when Felix successfully treated by incision a fistula on the person of Louis XIV. of France, employing the Bistouri Royale, a sickle-shaped knife.

The ligature method was described by Hippocrates and again by Celsus. After the successful operation on Louis XIV. it was discarded, but again introduced by Desault. The credit of simplifying and bringing before the profession the modern operation of incision belongs to Pott, who discarded the complicated instruments used by the French and employed a moderately curved probe-pointed bistoury. After he had shown that extensive excision was not essential and that simple division of the fistulous tract was sufficient, the operation became at once popular and has so remained. Division of the tissue between the rectum and the fistulous tract by the cautery knife has in recent years been popular with a few surgeons. Czerny employs the knife of a Paquelin cautery and his assistant Griffrath, whose report has been referred to, highly praises this method and claims for its distinct advantages over the method of division with cutting instruments.

The procedure which seems to be the most rational is the modern method of excision of the fistulous tracts after incision of the tissues between the fistula and the rectum. When all of the fibrous tissue about the tract has been removed, the wound is closed, the deeper parts with buried catgut and the skin and mucosa with silkworm gut sutures. If this is accomplished and the wound kept aseptic, we secure healing in from five to eight days with

sphincteric control almost from the beginning.

The method of simple incision is followed in the majority of cases by a cure, but the time consumed is from three to six weeks, while in excision with suture the patient is practically well at the end of one week. In complex or multiple fistula it may be impossible to remove all of the fistulous tracts at one operation, but this only rarely happens.

In most cases the fistulous channels are underneath the skin and fascia and excision of these tissues is of no consequence. In very few is it necessary to divide the sphincter in more than one place. It is worth remembering that in the operation for fistula, division of the nerves supplying the external sphincter must be avoided, otherwise a permanent paralysis of that muscle may follow.

THE DIAGNOSIS OF RECTAL DISEASES.*

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The subject assigned to me is entirely too extensive to be comprehensively treated in the time allotted for this paper and especially is this true in the light of recent observations in the anatomy and histology of the rectum and sigmoid flexure. Therefore, that I may more clearly elucidate that part of the above subject which I shall attempt to discuss, it will be necessary first, to briefly call your attention to a few observations recently made on the anatomy and histology of the rectum and sigmoid flexure as anatomical knowledge of a subject is prerequisite to a study of its pathology and the making of a diagnosis.

Doubtless some of the statements herein made may be a radical departure from those generally believed and accepted by the profession, however, I shall try to make no claim, that can not be substantiated.

I believe it is universally recognized that that portion of the large intestine extending

from a plane of the crest of the left ilium to the anal canal is known as the sigmoid flexure and the rectum. We shall recognize that part of this section having a mesentery, as the sigmoid and the remainder, the rectum. This makes the point of division between them opposite the middle of the third sacral vertebra. The average length of the sigmoid is said to be eighteen and a half inches. The distance between its two fixed points is about one-third of this distance. Its location, therefore, is necessarily a relative one, and depends (1) upon its length, (2) the length of its mesentery, (3) its relative degree of distension, (4) the degree of distension of adjacent viscera, and (5) the tension of the diaphragm and the abdominal muscles. In a collapsed state, as it is usually found in the cadaver, it frequently occupies the left iliac fossa and sinks into the pelvis. Skiagraphs, photographs and specimens, however, show that in the distended state in the cadaver, it generally extends into the right iliac fossa. (Figs. 1, 2, 3.) This leads us to infer that just prior to defecation the filled sigmoid is held near to and over the bony prominence of the abdominal and pelvic cavities, and that during this act, the individual occupying the sitting posture, it is squeezed intermittently between these resisting points and the diaphragm and abdominal muscles.

The rectum consists of the remaining portion of this intestine, and is divided into chambers or apartments by the plicae transversalis recti, valves of Houston. (Figs. 4, 5.) These plicae, their function and relation to the formation of stricture, were described by Houston in 1830. Since his first description of these structures, various constructions have been placed upon them by anatomists and authorities upon rectal diseases. A few writers like Kohlrausch, Otis and Martin, have corroborated and added to his discoveries; while others like Bodenhammer, Kelsey and Mathews have denied their existence and still others as Allingham, Cripps and Ball have not even so much as mentioned them. The writings and indifference of such well-known men especially as the two latter classes have had much to do with moulding the medical

*Read at the Fiftieth Annual Meeting of the Illinois State Medical Society, Springfield, May 15, 1900.

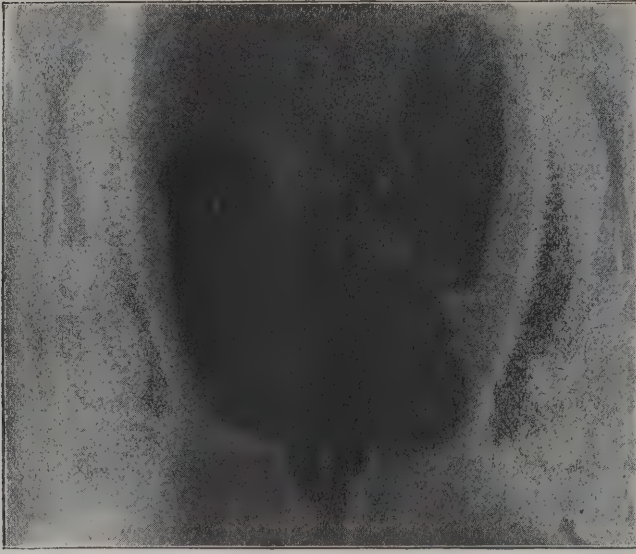


Fig. 1.—Skiagraph showing the distended sigmoid, *a*, in the right side; *b*, the rectum; *c*, transverse colon; *d*, splenic flexure. The subject was placed in the knee-chest posture, and the bowel filled from below with bismuth emulsion.

mind concerning these structures and causing it to doubt their existence. The number of these plicae or valves varies. As a rule there are three, sometimes only two; again, there may be four or even more. Usually they are semi-lunar in shape; their attachment forms from one-half to two-thirds the circumference of the intestine. Their margins are concave and usually directed a little upwards. They are most prominent when the bowel is distended. Their depth in the adult is from one-half to three-fourths of an inch or even more.

When in regular order the lowermost or first one is situated on the left side about opposite the junction of the sacrum and coccyx. The uppermost one at the upper end of the rectum and on the same side of the intestine; while the second or middle one is situated on the right side at about the junction of the middle and lower third of the distance between the first and third one. (Figs. 6, 7.) Frequently they are irregularly situated or coarcted which might be construed as a deformity. (Figs. 8, 9.) Believing that the most acceptable manner in which to offer conclusive and impartial evidence of the existence and structure of these plicae would be through

a disinterested though recognized authority. I submitted to W. A. Evans, M. D., Professor of Pathology and Histology in the Medical Department of the University of Illinois and the Columbus Medical Laboratory, a number of specimens of these valves for histological and pathological examination. His report shows that their histology is variable. Some being composed of the duplicated mucosa, with thick dense fibrous submucosa. In others, in addition to the coats mentioned, circular muscular fibers extend almost to the tip. In still others they extend one-half or two-thirds the length of the valve. Sometimes the longitudinal muscle spans the base of the valve; again, it splits some fibers, following the circular coat, and some spanning the base. In some instances it extends well into the tip in all of the valves. Lymph nodes were also found in the valve, and large sympathetic ganglia external to the muscular tunic. Congenital hyperplasia of the mucosa, muscularis mucosa, submucosa and muscular tunics at their apices or along their free borders were also observed.

Inasmuch as these valves occlude quite one-half of the lumen of the bowel when it is distended, it would seem that the hyper-

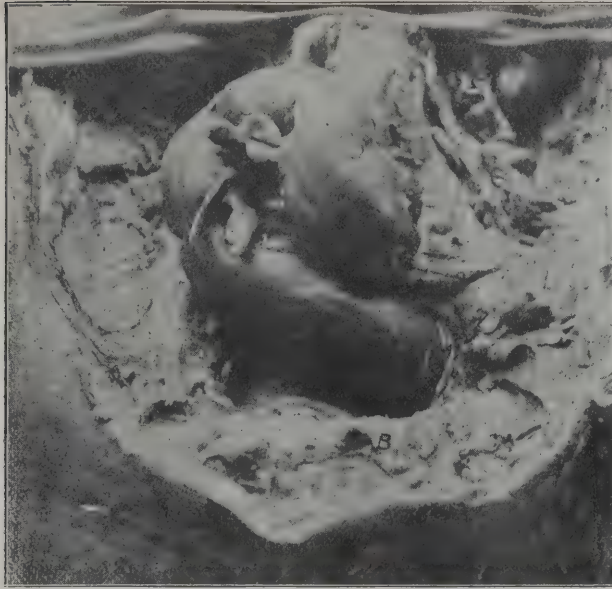


Fig. 2.—From a photograph showing the distended sigmoid flexure extending into the right iliac fossa. An incision was made in left inguinal region, sigmoid and rectum irrigated, then filled with hot paraffin. After cooling, the abdominal muscles and adjacent viscera were removed when it was photographed. *a*. Band of mesenteric fibers thrown across sigmoid and rectum at their junction; *b*, pubes.

trophy of the structures together with the deformity above mentioned, would, in some cases at least, contribute in no small degree to the formation of obstinate constipation and its sequelae, so-called intestinal auto-intoxication, neurasthenia, etc., and, if so, the cure of these latter conditions would depend, in a measure at least, upon the relief of the obstruction, causing the obstinate constipation. The diagnosis of the obstruction offered by these valves is made by the symptoms of the obstipated patient and by instrumental inspection.

Symptoms.—The patient is the subject of more or less obstinate constipation, he may have a daily evacuation, but it is unsatisfactory; he experiences a sensation after defecation as if feces still remain in the rectum; he acquires the reprehensible phisic habit. He may have a desire to stool which requires a labored and straining effort to accomplish the act; or, he may tell you that he never has a desire to defecate and believes his bowel would never move unless he takes some form of phisic or an enema. In the former condition it is usu-

ally the first or second or both valves that are involved; while in the latter condition it is the uppermost one that is at fault. In time he has occasional attacks of diarrhoea, or diarrhoea alternating with obstinate constipation; also, the symptoms of so-called intestinal auto-intoxication and neurasthenia. The valve being an almost non-sensitive organ the patient rarely refers his sufferings to this region; yet, in some instances he may complain of pain and aching in the sacral and lumbar regions and a heavy sensation in the pelvis and pains extending down the legs.

Instrumental Inspection.—This requires that the operator be provided with special instruments designed for the purpose and that the patient be maintained in knee-chest or proctoscopic posture, in order to gain the assistance of atmospheric inflation. For obtaining this position I have a specially designed table armed with a bracket, light, condenser and reflecting mirror for throwing the light on the field of inspection. The instruments necessary for this examination consist of a set of tubular spec-

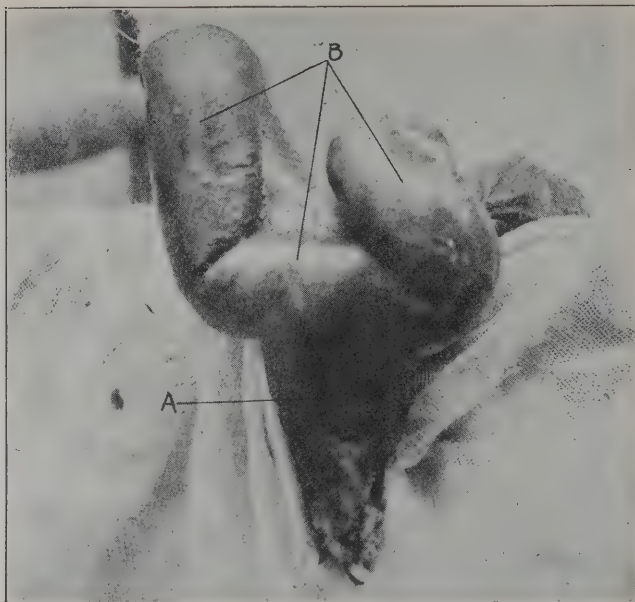


Fig. 3.—Photograph of rectum, *a*, and sigmoid, *b*, of Fig. 1, after removing from the body. Sigmoid extends into right iliac fossa, makes sharp bend anteriorly upon itself, descends and crosses junction of rectum and sigmoid at right angles.

ula of various lengths and diameters fitted with glass caps and bulb for inflating the bowel when necessary. (Fig. 10.) With the patient in the protoscopic posture, the speculum is well anointed with vaseline, grasped with the full hand and gently introduced. The obturator is then removed and the light so adjusted as to illuminate the bowel. By intelligently manipulating the speculum and light, you at once command a view of the various chambers and valves and observe the degree of rectal distension, the number of valves, their relation to each other and the relative size of the various chambers. In the next step, note, the character of the mucous membrane whether edematous and swollen or atrophied. Moist or dry, red and inflamed or pale; then compare its relative characteristic in each chamber and over each valve. Should atmospheric pressure not produce sufficient inflation, then effect this artificially by means of the insufflator. The next step is to test the elasticity of the valves which is done by means of the angular hook. A healthy valve is readily effaced

by means of this instrument. If the valve is hypertrophied or stiffened from other causes it will not be effaced and will interfere with normal defecation. Unfortunately the condition of these structures is rarely noted until they are in a chronic pathologic state, which changes them from a physiologic intermittent obstruction to a pathologic and continuous one. This is probably due to compensatory hypertrophy of the bowel immediately above the valve which prevents the early development of noticeable symptoms of obstipation. By this means of inspection and examination there need no longer remain an undiagnosed rectal ailment as you not only have full command and a plain view of the entire rectum, but a portion of the sigmoid as well, and you can see and inspect these structures with as much facility, clearness and ease as you can the tonsils and the pillars in the pharynx.

The set of proctoscopes with universal handle and detachable tubes was made by the W. R. Grady Co., Chicago. Skiagraphs, by the Mica Plate Static Machine.

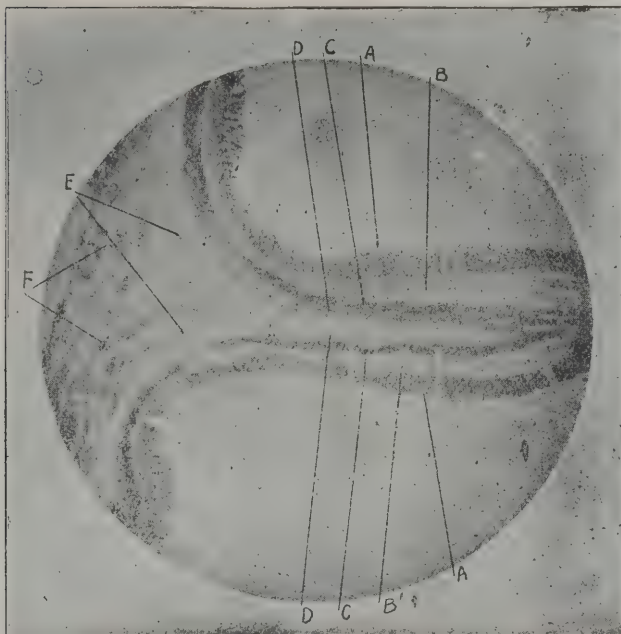


Fig. 4.—Section from the second rectal valve of a child four months old, showing the mucosa, *a*; submucosa, *b*; circular muscular fibers, *c*; longitudinal muscular fibers, *d*, and loose connective tissue, *e*, containing ganglia and nerves, *f*, external to the muscular tunics.

THE TREATMENT OF HEMORRHOIDS.*

BY N. H. HENDERSON, M. D., CHICAGO.

During our college course we received little or no instruction on this subject, the course outlined for us comprising some mild palliative measures which virtually left our patient in the same condition in which we found him.

If operative procedure were found necessary we were offered the clamp and cautery, or the ligature. To attempt any other surgical treatment (if the use of clamp, cautery and ligature may be called surgery) was considered dangerous, numerous cases of fatal hemorrhage following rectal operations being on record.

The so-called Whitehead operation, brought before the profession a few years since, marked an epoch in Rectal Surgery. This operation must be familiar to you all and I will spare you a detailed description.

Suffice it to say there is much to commend it, but it also has features which merit criticism. In the Whitehead method the pile-bearing inch is dissected away, laying bare the sphincter ani. Next, the bowel is drawn down and sutured to the integument, covering the sphincter with a membrane that is almost if not entirely devoid of sensation in place of the original covering which is supplied with an abundance of nerve-fibers.

The approximation of the bowel and skin by means of suture results in cicatrization and on digital examination it imparts a feeling as of a wire band around the anus.

Thus we have a rectum minus its piles but at best clumsy and lacking the sensation necessary to the performance of its normal functions. In many cases incontinence ensues, rendering life a burden to the unfortunate patient. In nearly every case under my observation this operation has been followed by persistent constipation, only to be overcome by the daily use of laxatives or enemas. This state of affairs seems deplor-

*Read at the Fiftieth Annual Meeting of the Illinois State Medical Society, Springfield, May 15, 1900.

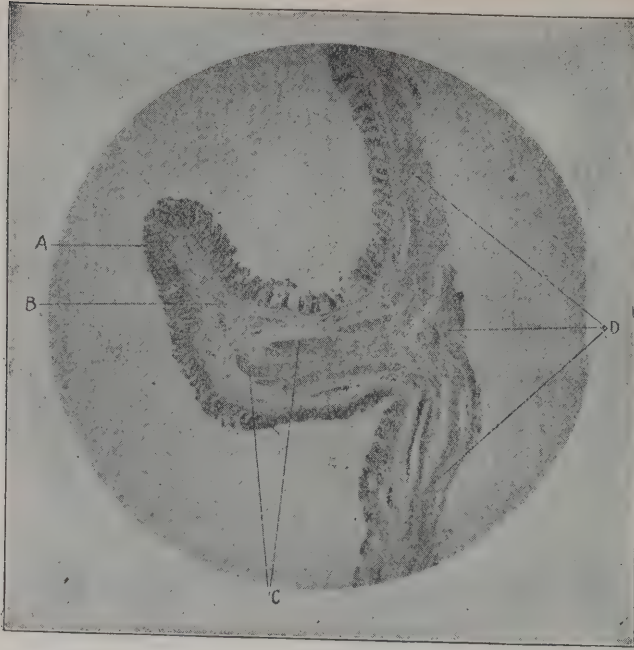


Fig. 5.—Taken from the first rectal valve of a child six weeks old. It contains mucosa, *a*; thick, dense, submucosa, *b*. The circular muscular tunic, *c*, runs into the valve about one-half or two-thirds its length. The longitudinal muscle, *d*, spans its base.

able, but to the patient it is a relief after the hemorrhoids.

It would seem that in the simple operation for destroying a few hemorrhoids there could be little room for difference of technique, but it is my purpose to describe an operation which by reason of its simplicity and its uniformly good results appears to be preferable to the Whitehead or any other surgical procedure which I have employed. The patient is prepared as follows:

Twenty-four hours before the operation give a liberal cathartic, followed in twelve hours by a copious enema. The patient should be kept on light diet for twenty-four hours before operation.

When on the table dilate the sphincter with a large, heavy bi-valve speculum, at the same time washing out the rectum with sterile water. Do not be afraid of putting the sphincters on the stretch, for the more they are dilated the less post-operative suffering for the patient. Now turn the patient upon his left side, the knees drawn well up toward the abdomen. Then seize the hemorrhoidal tissue at different

points on its upper border with the ordinary hemostatic forceps and by slight traction evert the entire circumference. Next divide the tissue at its junction of the mucous membrane with the skin by means of a sharp-pointed pair of scissors. If there is much redundant tissue a slight encroachment upon the skin may be advisable. Dissect the hemorrhoidal tissue from the sphincter being careful not to injure the muscles at any point. Having carried your dissection up as far as the hemorrhoids extend, remove the loosened tissue completely. Catch up any bleeding points with hemostatics, and if necessary tie them. If the case has been an extensive one it may be necessary to tie a branch of the perineal artery if there is a large hemorrhoid at that location, but it is not often necessary to ligate any other vessels, the forceps generally being effectual.

In cases where the entire circumference of the rectum is involved, making a complete denudation imperative, we are more or less certain that in the course of repair more contraction will take place than is de-

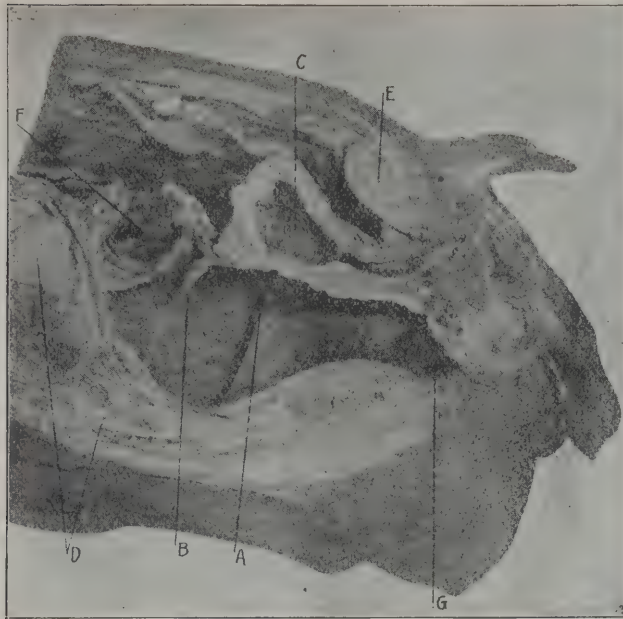


Fig. 6.—Left half of unfilled specimen frozen and sawed open; showing the first, *a* and third, *b*, rectal valves and their relation to the bladder, *c*; sacrum, *d*; pubes, *e*; sigmoid, *f*; and anus, *g*.

sirable and the patient's condition is scarcely better than before the operation. To obviate this difficulty we will go a step farther. Again put the sphincter on the stretch and before removing the speculum make a free incision in the posterior median line to the extent of completely dividing all of the fibres of the external and if necessary part of those of the internal sphincter, and with a pair of scissors trim away each edge of the wound so that they will not roll together and immediately unite. Now we have a complete section of one-half, three-fourths or perhaps one inch of the lower part of the rectum with the sphincter laid bare and a deep wound in the posterior median line. In some cases where there has been a great deal of prolapsus there may be some disposition to recede on the part of the bowel. If very resistant it may be desirable to put in a catgut stitch on each side as a temporary anchor to keep the bowel down, but this is seldom necessary.

The operation being complete we place well up in the pouch of the rectum a moderately large cotton tampon covered with gauze or silk, with a strong double silk

thread attached, laying a pledget of gauze in the posterior incision to prevent its healing except by granulation. Then by making traction on the threads attached to the tampon we bring down the receding bowel, placing on the outside a roll of cotton covered with gauze over which the tampon thread are to be firmly tied. Thus we get equal pressure from within and without. In twenty-four hours there will be sufficient union to retain the parts in their proper relation, at which time the tampon is gently removed, the packing taken out of the wound in the sphincter and the entire wound thoroughly irrigated through a small bivalve speculum. The posterior incision must be repacked each day until it fills in by granulation. The narrow space left between the membrane and the integument also granulates in, the original sensitive membrane being reproduced. Keep the patient in bed from fourteen to twenty-one days. Forty-eight hours after operation a laxative is administered, followed by an enema to secure a free evacuation, after which the bowels should be moved by enema each morning before dressing the case. After the first



Fig. 7.—The right half of Fig. 6, illustrating the second rectal valve, *a*; and its relation to the bladder, *b*; and sacrum, *c*. Note the dilatation, *d*, immediately above and below the valve, *a*; *e*, the anus.

evacuation the patient is placed upon regular diet.

I have operated upon over four hundred cases in this way. I have had no secondary hemorrhages; in a few cases, perhaps a dozen, there has been more contraction than was desirable, owing to carelessness in after-dressing, and in two cases I have had to enlarge the anus because of undue contraction. I have as far as possible followed up these cases after leaving the hospital and find that in nearly every instance there has been no constipation as a result of the operation, and those who were previously constipated found that trouble entirely removed. Needless to say there has been no return of the hemorrhoids.

In conclusion I wish to reiterate that a great deal depends upon the after-care of these cases. Keep your patient in bed two to three weeks, dress the wound after each evacuation until healed, keep the posterior incision packed until it heals from below and the result will be a normal rectum capable of performing its functions in a normal manner.

DISCUSSION ON THE PAPERS OF DRs. HALSTEAD, PENNINGTON AND HENDERSON.

DR. A. E. HALSTEAD, Chicago: I desire to call attention to one point in connection with the paper of Dr. Pennington with reference to the anatomy of the rectal valves. It is only the middle one that has muscular fibers; the other two are duplications of mucous membrane.

Another point with reference to rectal examinations. Modern surgeons are discarding the complicated rectal instrument, and particularly these specula. Like the gynecologists, we find we can do more with the finger, particularly with reference to learning more regarding the nature of the trouble, than by the use of the speculum and other instruments, no matter how simplified they may be. Furthermore, these large instruments are not devoid of danger. Very many times the surgeon is liable to cause lesions of the rectum more serious than the one he attempts to cure. The value of so-called rectoscopy, after the method of Kelly of Baltimore and of Martin of Cleveland, has yet to be determined. It is seldom that we can make a diagnosis of any condition within the rectum with any of these instruments. I have used them a number of times. Any lesion below the rectum can ordinarily be detected by the use of the examining finger.

Concerning the paper of Dr. Henderson, the operation he describes is that of Whitehead. I do not believe it is as good as the Whitehead operation, as slightly modified by Dr. Henderson. The operation of Whitehead is indicated in all cases where we have disease of the so-called pile-bearing area. The Whitehead opera-

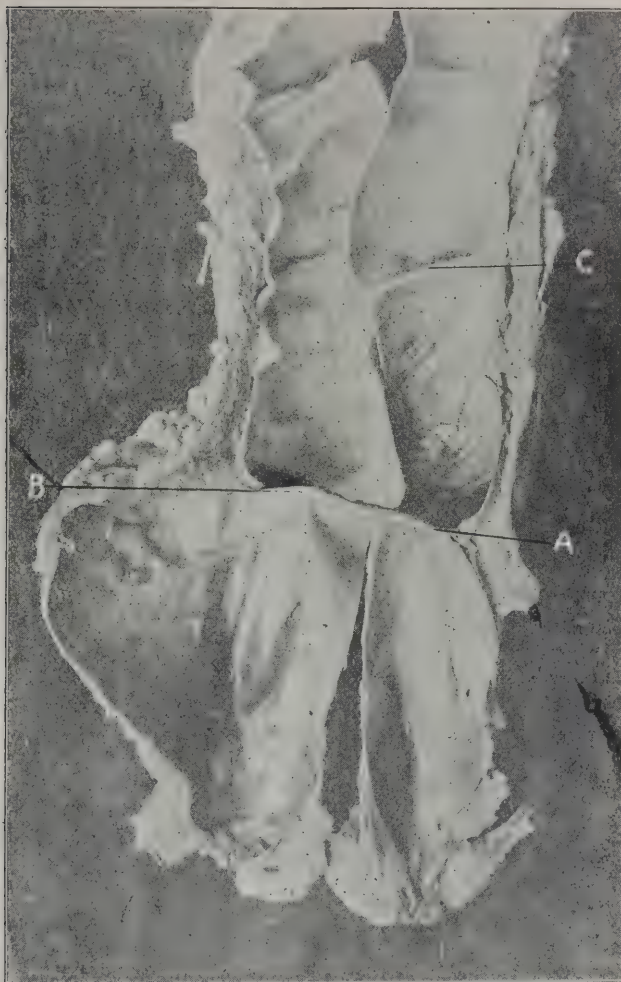


Fig. 8.—Illustrates anatomic coarctation of the first, *a*, and second, *b*, rectal valves; *c*, third rectal valve.

tion is simply this: An incision is made at one verge of the anus between the skin and mucous membrane the mucous membrane is dissected up for three-quarters of an inch, and that tissue is removed. The cut edge of the mucous membrane is then brought down and stitched to the cut edge of the skin. Sometimes division of the sphincter is advocated, but that is not necessary. This operation gives good results in the hands of the skillful surgeon. But there are certain indications which must be fulfilled. In the first place, you must have the wound absolutely clean; you must secure primary union; you must do accurate suturing, and one or two catgut sutures will not suffice. You must accurately suture the mucous membrane to the skin, in order to avoid cicatricial tissue of the rectum. The operation of cutting off piles, as I have seen done by rectal surgeons, and inserting a tampon is a procedure which should not be practiced by any one. The classic operations for hemorrhoids that are performed every day, such

as the Whitehead operation, the ligature method, the clamp and cautery method, and the excision method, that is, excising the hemorrhoidal node, ligating the vein above it, and subsequently suturing the mucous membrane, are all that are necessary.

DR. J. RAWSON PENNINGTON, Chicago: In regard to the operation for hemorrhoids, it is comparatively simple. There is nothing difficult about it. The only thing of importance to remember is to get the sphincter well divulsed. We have different varieties of hemorrhoids—the external and the internal. (Here Dr. Pennington went to the blackboard and with the aid of diagrams demonstrated the methods of removing both external and internal hemorrhoids. He also showed how to introduce his rectal tampon.)

With reference to what Dr. Halstead said concerning the rectal valves, I must say, with all due respect to Dr. Halstead and his knowledge, that a man should never enter the arena

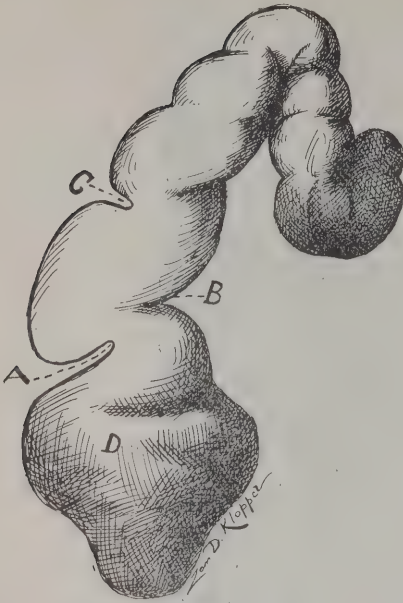


Fig. 9.—Cast of the rectum and sigmoid of Fig. 8; *a*, indentation formed by the first rectal valve; *b*, indentation in the cast formed by the second rectal valve; *d*, the ampula. The sigmoid and mesentery were very short in this specimen.

until he is prepared. (Dr. Pennington demonstrated that the rectal valves are practically in the sigmoid flexure.) Dr. Halstead has told you that one of these valves contains muscular fibers, but the others do not. I desire to show you in this connection a section of the third rectal valve. I also show you a microscopical section of that valve. It contains mucosa. Beneath the mucosa we have muscularis, with muscular fibers running into the bowel. Beneath the circular fibers we have the muscular longitudinal fibers of the intestine. In between we have adventitia or loose connective tissue, and beneath it the serosa. As I stated in my paper, these structures contain all the coats of the intestine except the serous membrane. I show you a section of the tip of the valve that shows it plainly and distinctly.

In regard to dispensing with the use of the speculum and other instruments in rectal work and relying upon the use of the finger, the man who says he can examine the rectum thoroughly and detect most of the lesions by the introduction of the finger makes a great mistake, and a statement that should be vigorously opposed. The man who uses a speculum in his rectal examinations can do much more effective and satisfactory work than he can by simply relying on the finger. These instruments, if skillfully employed, can be introduced without pain. It does not require the use of an anesthetic. (Here the

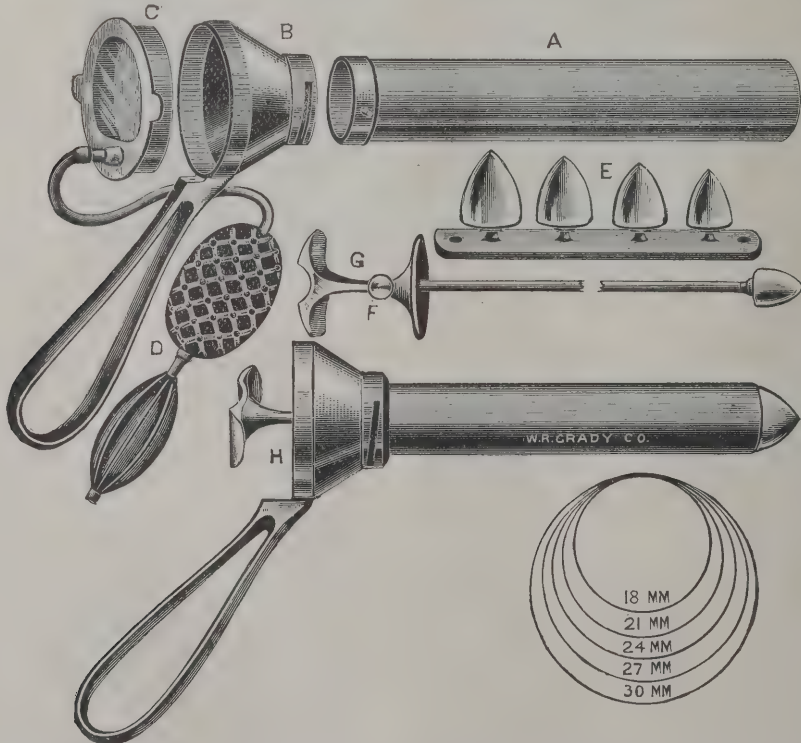


Fig. 10.—Author's Improved Rectal specula with Detachable Tubes from $2\frac{1}{2}$ to $8\frac{1}{2}$ inches in length. *a*, is a detached tube; *b*, is the handle and flange; *c*, is the cap containing a glass window; *d*, is a bulb for inflating the bowel; *e*, obturator tips of various sizes; *f*, is a set-screw; *h*, is a finished instrument. The rings represent the various diameters of the tubes in the practical set.

speaker demonstrated the application of his automatic valve-clip.)

DR. N. H. HENDERSON, Chicago: In reference to the remarks of Dr. Halstead, I wish to say that the operation described by me is like the Whitehead operation in some respects. But it is the manner in which I deal with the case after I have done the operation in an aseptic manner. When you break down the bowel and suture it to the integument of the anus, as in the Whitehead operation, you do not cover up the delicate nerve fibers of the mucous membrane, or where the mucous membrane was. That portion of the bowel has but little sensation. You cannot do it without having a clumsy, thick rectum with but little sensation. You cannot suture the bowel to the anal integument without producing constriction. You will do it every time. It is seldom necessary to put in an anchor stitch at all.

In reference to the remarks of Dr. Pennington about the operation, he has told us how to do the simple operation for hemorrhoids, but he has not told us how to deal with the complicated cases in which the entire circumference of the bowel is involved. The operation I have described will apply to that class of cases. Dr. Pennington has described the method of operating on those cases in which we have a few hemorrhoidal clots. These are snipped open and the clots squeezed out. But in the neglected cases of fifteen and twenty years' standing, where the bowel protrudes and rubs against the clothing of patients, we cannot effect a radical cure unless we remove the entire hemorrhoidal circle. Even if you subject this class of patients to the clamp and cautery method, it is not a permanent success.

As to the after-dressing, I agree in a measure with what Dr. Pennington has said. The objection he mentioned of the dressing getting away from him is correct. This dressing can be improved upon. A rubber covering is a desirable thing to use, but by introducing the tampon into the pouted rectum through a speculum, drawing it down, we carry the bowel to its normal position. By counter-pressure with the tampon, tying over it, we are able to hold the tissues in place, so that they will not get away.

ACUTE HEMORRHAGIC ENCEPHALITIS.*

BY CHARLES DEWEY CENTER, M. D., QUINCY.

Cases of Acute Hemorrhagic Encephalitis have to all appearances been relatively rare in the past, and from reports from various parts of the country are becoming more frequent each year, hence I have felt justified in presenting the history of this case at greater length than is usual. For this I ask your indulgence.

A case of multiple terminal-twig hemorrhage of the cortical system of the right side of the brain, followed by transient left hemiplegia, petit mal, and later generalized convulsions.

On February 14, 1899, I was called to the plant of the Quincy Valve Works to see a foreman, W.—. A.—, German, age 36 years. I found him sitting up supported by a workman. He showed some tendency to cyanosis. Was breathing, not stertorously, but with some effort. The pupils were contracted and the temperature sub-normal. The pulse was full, irregular, and about 80. His left hand was numb with diminished muscular force. The left leg was about equally disabled. He had great difficulty in speaking.

The immediate history of the case, elicited from fellow workmen, was that he fell unconscious and in a fit while working. From his family, and from him later, the following remote history was obtained: For two weeks previous to this attack he had been suffering from what they considered Grippe, and although he had not quit work, his discomfort, especially the pain in his head, had been so great that he had been unable to sleep for the two nights preceding the present attack. This pain was on the right side of the head, and in his words, was a feeling too great pressure. Its seat he designated as behind and above the right eye, extending back over a region equivalent to the upper and anterior parts of the Rolandic area. He denied absolutely any possibility of syphilis, and confessed to using considerable alcohol. He is about 6 feet tall, of full habit, and weighs between 200 and 220 pounds.

On February 13th, after a sleepless night, he went to work and found the water pipes frozen. While thawing them out he was compelled, as he worked, to lie in water and ice upon one side. He became very cold, wet and tired while doing this. That night again he could not sleep, because of pain in head, back and legs, and went to work the next morning intending to consult a doctor during the day. At

*Read at the Fiftieth Annual Meeting of the Illinois State Medical Society, Springfield, May 18, 1900.

10 a. m., as before stated, he fell unconscious.

After being taken home, the day passed uneventfully, and a few hours in bed with head high and hot bottles at the feet, so restored him that he wanted to get up. The hemiplegia was diminishing, and he spoke with greater distinctness. He was not allowed to leave the bed. Toward evening he began to have periodical attacks of twitching of the muscles at the left angle of the mouth. Immediately preceding these attacks there was a premonitory feeling of numbness of the thumb and fore finger of the left hand. He did not, during the spasms, lose consciousness, and several times was able to count through one, but very indistinctly, as the tongue partook in the spasm, being partially protruded and pushed to the right. As the spasm grew in intensity he would invariably, unless restrained, raise his left hand, gaze steadily and with an extremely sorrowful expression at it, and hold it up until the spasm passed. He could not tell why he did this, nor remember doing it. These spasms lasted about two minutes. During the muscular twitching his face reddened, the vessels of the conjunctivæ and sclerotics became engorged, and the lips a little cyanotic. The pupils would not respond to light, but sometimes he would wink at the approach of a flame to his eyes. He felt no pain other than the headache.

The night of the 14th he slept fairly well, having but six or seven of the facial spasms. He had been placed on full doses of bromide, together with the acetate and citrate of potassium, and broken doses of calomel, as he was constipated and was passing but little urine heavily loaded with albumin.

During the 15th, the only change was in the number of spasms and the lengthened duration of each. One or two of them involved both sides of the face. A copious evacuation of the bowels had been secured, and he was excreting a greater amount of urine still containing albumin.

On the forenoon of the 16th, Dr. Chris-

tie, Sr., saw the case with me, and in the afternoon of the same day, Dr. Johnson also saw him. The first part of this day he was apparently better. Neither of the consultants was fortunate enough to see one of the facial spasms. Two hours after Dr. Johnson and I saw him he began to grow worse. The spasms became general both tonic and clonic convulsions involving the entire body. Large doses of bromide and morphine failed to control them in any degree. In the six hours from 3 to 9 p. m., he had between 30 and 40 convulsions, those occurring between 8 and 9 o'clock, being so profound that at the climax of each, the attendants holding him in bed thought the patient had died. There was opisthotonos, profound protrusion of eye-balls, tetany, recession of lips, face first congested, then cyanotic, then livid to an extreme degree. The pulse became very rapid and weak. The temperature was 99 and a fraction. Dr. Christie, Jr., now saw the case with me, and hoping it would afford relief, we determined to do craniectomy. Our diagnosis at this time was, Intra-cranial Pressure, and we did not specify the cause.

The patient was placed on the kitchen table and the head prepared. I may say in passing, that the only scars upon the head were two linear ones above and behind the left ear, the result of a cutting affray some ten years before.

No anaesthetic was used, as the patient had been in a state of coma, between convulsions, for two or more hours. The opening was a curved incision of the soft parts over the middle and upper area of the right Rolandic tract. A chisel was used for the bone work. The dura was very tense and bulging, with turgid blood vessels. On incising it, considerable bloody serum escaped. The pia was so tense and protruding that, by the uncertain light of a hand lamp, it was first thought to be a cyst wall. Considerable bloody serum, together with small particles of the gray matter, ran out when this was opened. The cortex was disintegrated so

much that on touching it lightly with a gauze sponge, small pieces would adhere to the mesh. As far as exploration could be made, there was an appearance of multiple minute hemorrhages. The brain was aspirated in three different directions with negative results. The patient had five severe convulsions while on the table, a period of a little less than an hour.

It was decided futile to do more, so the wound was closed with absorbable sutures in the dura, and silk worm gut in the skin, and dressed with a good-sized gauze drain at each angle of the wound, one of them entering the dura. No effort was made to close the opening in the bone. The patient was placed in bed about 11 p. m.; condition very bad, pulse 160 and very irregular. Prognosis the worst. Strychnin and atropin were given hypodermically.

There was no change until about 2 a. m., save that the convulsions grew more feeble, and came at longer intervals, which, considering his condition, I ascribed to approaching dissolution. At 2 o'clock the pulse had receded to 140 and was more regular. At 3 o'clock he was beginning to show signs of consciousness, with no convulsions since 1:30, pulse still improving. At 4 the patient was able to swallow a little brandy and water, and at 5 he began to speak. From this time he made an almost uneventful recovery. For about 30 hours after the operation the escape of serum was very copious, so great that not only the dressings, but his pillows were kept saturated. Then the discharge stopped, and shortly after he began to complain of the pain in his head again, and later began to have slight spasms of the left facial muscles. I then dressed the wound, some 40 hours after operation. There was no serum escaping through the drains, but the skin over the opening was bulging. On pulling out the gauze that entered the dura, a stream of clear serum shot up, like the spurting of a severed artery, to a height of probably eight inches. An amount estimated at 3 ounces

escaped. As some head pain remained an hour after dressing, I put two leeches on the post auricular space of the right side. Hereafter the wound was dressed daily, serum escaping for 8 or 9 dressings, when there being no more, the wound was allowed to close. Had it become necessary, aspiration could readily have been done through the soft parts. Six weeks from the time of operation, he returned to his work, suffering no inconvenience. His employer tells me however, that his perceptive faculties seem dulled, that he is indecisive, and slower of speech and motion than formerly.

The chief point of interest in this case is, perhaps, the difficulty thrown in the way of making a positive diagnosis. The majority of symptoms pointed to one, or more, of four diseases. Epilepsy, cerebral hemorrhage, cerebral thrombosis and uremia, in other words, eclampsia. There also presented for consideration the more unusual troubles, idiopathic non-suppurative encephalitis, and cerebral edema. Meningeal inflammation was not considered as a cause. Simple epilepsy was described because as time went by it became more and more evident that there was something more than functional trouble within the cranium. Traumatic epilepsy, in its restricted sense, could be eliminated since there was neither near nor remote trauma i. e. in the generally accepted sense of the term. Epilepsy from syphilitic neoplasm could not be considered if the word of the patient was good. On the other hand, there was a possibility of epilepsy from excessive mental or physical irritation. There was what might be considered a motor aura in the left hand, and the convulsions were epileptiform at least. Per contra, there was a history of cerebral irritation of two weeks duration, 11 days before this period of excessive physical and nervous exhaustion, and 14 days before any manifestation of petit mal or grand mal. There was an initial shock and a resulting hemiplegic condition. It was also evident that this intracranial irritation was rapidly growing more intense.

These facts in their entirety, moved us to exclude epilepsy, *per se*, as a cause for the found condition.

The question of uremia with eclamptic convulsions then rose for consideration. Here was a case where the amount of urine had failed rapidly, and where upon examination it was found heavily loaded with albumin. The head pain would not be out of place in an absence of kidney function, but there were no uremic vision symptoms. There was no vomiting. Instead of somnolence there was insomnia. The patient was a large full blooded man, but his pulse was not unusually full or bounding. There was no uremic odor, nor urea crystals on the skin. Also, when kidney function and bowel action had been re-established, after an apparent improvement of some 12 hours, the convulsions grew in frequency and intensity.

Uppermost, I believe, in the minds of the four members of the profession who saw this patient, was the belief in some form of cerebral hemorrhage. That it was slight, or at least insufficient to produce much pressure, was plain since there was no persistent paralysis. There was first, the subjective evidence of intracranial irritation; then the objective evidence of monospasm, changing later to generalized convulsion; there was the shock, hemiplegia, and the patient's history.

Because of the train of convulsive symptoms, it was believed that the lesion, or lesions, were near the cortex. It was not easy to reconcile the spasms of the left side of the face with a lesion of the right side of the brain, but some of the spasms were bi-lateral.

It may be impossible to prove to the minds of all that this was primarily a case of hemorrhage rather than embolism or thrombosis. I know of nothing more efficient for this purpose than the admirable table of differential probabilities, compiled by Church of Chicago, and published in his work on Nervous Diseases, and in the Year Book for 1899. Not all of these

probabilities can be reconciled in this case, but enough of them can to make a somewhat unusual case reasonably clear. Thrombosis, according to him, is usual in young adults and old age. Hemorrhage before three, and between 40 and 60. This man was 36, but in habit, adipose development, and appearance, is 40 or more. Church gives as the usual antecedents of thrombosis, endarteritis, atheroma, endocarditis, cachexia, and embolism, none of which, we have reason to believe, was manifest here.

For exciting conditions of hemorrhage, he gives high arterial tension, excitement, effort or shock, the reverse for thrombosis. In onset conditions this case is not so typical. Here was a prodromal period, not usual in hemorrhage, expected in thrombosis. The initial coma was of brief duration. The face was congested, the breathing heavy, and the pulse was full though neither slow nor rapid. The motor loss was hemiplegic, and was greatest immediately after the initial shock. So with the exception of the prodromata, these onset conditions coincide fairly well with those given by Church for hemorrhage.

Coming to his classification of symptoms for course, there was the expected rapid improvement in motion, the foot gaining faster than the hand. Anesthesia, however, was never marked, and periodical paresthesia persisted in part of the left hand, an anomalous condition. This patient never had true aphasia, but rather, tongue sluggishness. Again, where this case was atypical, was in the post-plegic convulsions, they being classified as common with thrombosis, uncommon with hemorrhage.

I believe some of these anomalies may be accounted for by reason of the lesions being in, or near the cortex.

I have not been able to find much in current literature of value for comparison with this case. Bouffleur reports a case found unconscious on the street. As there was a scalp mark of contusion, its origin and time of receiving unknown, it was thought he might have sustained a frac-

ture, there being no other discoverable reason for his coma. At the operation no fracture was found, but there were present numerous punctate hemorrhages of the brain substance. He classifies this as brain contusion.

The law laid down by Courtney is of interest, since the operation in my case revealed cerebral edema. He says, "cerebral edema is primarily the inevitable sequence in time, of that complex of pathologic symptoms which we designate contusion."

In the same connection, and bringing up a phase of the case hitherto dwelt upon, Traube says, "An acute edema of the brain produces uremic symptoms." The question then arises,—Is it possible for this complex of pathologic conditions designated as contusion to come into being without violence exerted on the outside of the skull. I believe it is; that when a given arterial pressure acting under abnormal conditions, upon possibly an abnormal wall, of a given artery, is able to rupture that artery and cause a punctate hemorrhage, it is to be expected that this same arterial pressure will, under the same abnormal conditions, rupture adjacent walls of arteries of like abnormality and calibre, and cause multiple punctate hemorrhages. The rupture of a minute terminal twig is not like the rupture of one of the arteries outside of the cortical supply, for here the extravasation is so minute that arterial tension is practically unchanged, and furthermore, these terminal twigs have no anastomotic branches. Whether or not, the curable encephalitis of Strumpell, called by some other writers, cerebritis, a disease which produces a condition of the brain not unlike traumatic contusion, was present here during the two weeks of intense cephalalgia, we cannot positively say.

Church, in his work on Nervous Diseases says, "except in traumatic cases, hemorrhage into the substance of the brain is a secondary or terminal effect of degenerative or inflammatory disease of the cerebral blood vessels, almost invariably of the arteries." From his standpoint, there

existed in this case an inflammation prior to the rupture of blood vessels, a condition designated by him as "acute hemorrhagic encephalitis." He further says that "anatomically the disease is marked by multiple, non-suppurative, inflammatory foci, showing congestion and either punctate or massive hemorrhages, leucocytal infiltration and localized destruction of brain tissue." Still quoting, "most of these cases follow influenza."

We now have the tangle of symptoms made at least partly clear. First, the punctate hemorrhages revealed by operation, a brain trauma equivalent and analogous to brain contusion. Brain contusion producing brain edema, (Courtney) the edema likewise demonstrated by operation. Acute brain edema producing uremic symptoms, (Traube) one of the stumbling blocks before the operation.

In addition it may be said that in February, 1900, this patient was taken sick with the symptoms of influenza, and had a recurrence of the increasing cephalalgia which persisted regardless of the use of cathartics, diuretics and acetanilide until the escape of between one and two pints of blood which afforded relief from the head pain, and also the twitching of the muscles. There have been no further symptoms.

WHAT SHALL THE HARVEST BE?*

BY R. H. HENRY, M. D., PEOTONE.

Whether we accept the Adamic or the Darwinian theory of creation; whether we accept the christian's or the infidel's belief in the future state of man, matters but little to many. But whether accepted or rejected, one fact remains patent, i. e., that man was created by his Maker to perpetuate his kind. It requires no special religious tenet or peculiar theory as to the origin or final destiny of man to see this. Look about and see the law indelibly writ-

*Read at the Fiftieth Annual Meeting of the Illinois State Medical Society, Springfield, May 16, 1900.

ten upon every hand, by nature; she teaches it in the animal and the vegetable kingdoms—the parent is consumed in the production of the offspring. The flower is but the beautiful emblem of a life to come. The fruit contains the seed, the germ of the next generation, and so on, all through both kingdoms. Man was intended to be no exception. He should be none. But, owing to higher civilization or corrupting influences from other sources, there is a large portion of the best elements of society who almost, or entirely shirk their duty along this line. They are usually the very ones who should perpetuate their kind—the intellectual, the refined, and the wealthy. This responsible mission is being, in this country, too universally left to the classes who should contribute but a minimum, or be debarred entirely. I mean the pauper, the defective, and the criminal classes. These classes are already too full for the good of the nation. It is owing to this overplus that our hospitals, almshouses, asylums and penal institutions with their burdensomeness, exist.

The strength of any nation depends upon the integral worth of its individual members. Given a relative decrease of the healthy, the intellectual and the virtuous in society, it requires no seer to say what the harvest shall be, what the future of this or any other nation is.

We are, of all people, the most Frenchy. Wealthy, brilliant, vivacious, fashionable, proud, corrupt, self-destroying. France has for centuries been the god of fashion for this nation. Her fashion plates have adorned our homes; her fashions have been our fashions. Her poisonous tendrils have found footing in our soil and produce their baneful influences, until to-day, in certain sections of the country, we are almost compelled to resort to what France had to in order to stay her retrogressive population.

I can conceive of no more shameful piece of national legislation than France enacted to encourage an increase in the french population. Let us, as the noblest take warning. And let us, as the noblest

organization within the limits of the grandest subdivision of the grandest nation under the sun, stand fairly and squarely for the right. And by example, and by precept, show to the world that we recognize this evil tendency and are fully cognizant of its destructive influence and that we mean, if possible, to preserve our state and nation too, as far as we can, from the vile scourge. Children are the light and life of the world; without them, there is no true home. Should the death angel pass over our land to-night and remove from our midst all the children of sixteen years and younger, what would be the situation? The wail that went up from all over the land of Egypt because of the destruction of the first born, would not compare to it. Life, light, hope, joy and ambition would have fled with the loved ones. Business would be paralyzed, schools closed, music hushed, pursuits abandoned, homes forsaken, suicides rife—in fact, earth would be one vast, neglected desert. Do the opposers of God's plan recognize this? Do they ever stop to consider? Are they ashamed of their ancestry and their own blood? Is the husband ashamed of his wife and the blood of her kin? or does he mean to insult all?

As I have already intimated, the poor, the criminal and the defective classes are allowed too liberal a share in the matter of racial perpetuation. The matter should be equalized. Let the wealthy, intellectual, and cultured contribute according to their several abilities. Those who can afford and know how to properly clothe and feed, should rear the children. Given fewer pauper and defective children, we will have fewer criminals to look after and care for. Given more children with healthy bodies and sound minds, of healthy, intelligent, educated, moral parentage and the accompanying environment, and you have supplied a class of citizens who need no law, and no doctors, for they will justly and proudly care for themselves.

We do not expect wheat from tares nor figs from thorns, and as little reason have

we for expecting brain, moral or social worth from the potato-fed and filth-steeped criminal-slum progeny. The highest degree of perfection among the domestic animals cannot be attained to, without the closest attention to nourishment of the young. Those engaged in the business fully appreciate this fact and make a careful study of the subject. The owner of a fine horse never fails to provide the animal with what is considered best for him, yet I have known many, yea very many instances, where from neglect and as a matter of economy, children were less well cared for; and I have no doubt but most of you could recall similar instances. Children are born degenerate and are made so by privation, exposure, neglect, etc. Many brilliant intellects that shine to-day and many thousands that have shone in their day and passed on, could have, and would have been consigned to everlasting obscurity had their environment been different.

The salutary effect of a good, pure, clean, christian home, consisting of father and mother and several bright, healthy children, cannot be overestimated. Goodness, purity, wholesomeness, happiness and love, and I may add christianity emanate from such a home, as does fragrance from the flower. That is God's ideal home. That, the backbone of America. Heaven upon earth.

One object of this paper is to call your attention to the existing state of affairs which certainly is alarming enough. Another is to arouse an active interest, which will stimulate a zealous, concerted activity, which I hope may prove effectual for good. I have not overdrawn the picture. Bone cannot be built without lime salts; muscle without nitrogen; nerves and brain without lecithin or temperature (which is life); nor resisting property of the cells without the carbohydrates and the hydrocarbons. Then, if these elements and compounds are necessary to the growth of the various systems of which the human body is composed, certainly any feeding of

children that falls short of supplying an abundance of these and any other essentials to growth, in a wholesome, acceptable condition, fails in the object aimed at.

Have the state spend a little money for the employment of competent instructors in the art of preparing food and have these teachers of the culinary art visit all parts of the state and teach all classes how to cook. Also have scientific instruction of the highest degree, written by the best teachers of physiology and hygiene, printed and scattered by the State Board of Health broadcast from north to south and from east to west, so that every home may be supplied. Teach people how to raise healthy children. Teach them why they should raise healthy offspring. Teach them that money expended for proper clothing and food is a good investment. Teach them to maintain sanitary homes and surroundings. Teach school boards to disinfect the school buildings and school premises. Instruct school teachers how to care for our loved ones under them, not allowing those with tubercular contaminated lungs, to breathe their poisonous breath into the faces of the little ones'. More children are damaged than are benefited by the modern system of teaching. Teachers are not properly qualified to care for their wards. Every teacher should be taught how to take the temperature and pulse of a child and be acquainted with the symptoms of the more common childhood ailments. School children should be inspected every day by a competent physician who is paid from the school fund. New York has a very good law along this line and we would do well to imitate it. Let us join hands and work for the children. Give them a chance. The poor little fellows have waged a long, determined and unequal warfare for existence against a cruel, relentless and superior foe, their parents and guardians. And, thanks be to God Almighty, the children have kept the field and will, by the continued assistance of Christian philanthropists and the medical fraternity, eventually win. Multi-

plied thousands of little earthy mounds all over this broad and beautiful land, mark the last resting place of all that is earthly of as many loved ones who have crossed to the other side.

Does it not cause serious reflection when you think of this? Do you never think that the number is too great and that something might have been done to cause different results? I often do. I never forget the first child I lost, after starting the practice of my profession and I never shall. While I never laid up anything against myself for it, I have thought thousands of times that perhaps I might have saved the little one had I done differently, or that its life might have been saved in the hands of a more experienced physician. This has been my experience; yours may have been as remorseful.

Encouraged by the light of scientific attainment, I am emboldened to say that the future will see no such loss. With improved hygiene and sanitation; better nursing and dietary; the proper scientific classification, segregation and education, the future of childlife presents a more roseate hue.

THE MEDICO-LEGAL STATUS OF ABORTION.*

BY O. B. WILL, M. D., PEORIA.

In connection with the subject of this paper it is not the object of the writer to attempt indulgence in any philosophic dissertation on the principles involved. It is not his purpose to treat of the logic of the law, nor its relations to questions of public policy. Much less is it within the bounds of his aim or ability to deal in any original way with the technical details of the application of these. Suffice it to represent his desire, primarily, to call attention in a somewhat desultory and dogmatic way, to a few facts and principles established or reiterated by rulings and decisions in recent cases before the courts of this State, involv-

ing the relationship of the physician to the requirements of the law in connection with the circumstances of abortion; and, secondarily, to indicate the great necessity that exists for members of the profession being fully alive to the responsibilities and dangers of their position relative to this particular phase of practice.

In its medico-legal aspects, abortion is either a crime per se or an act involving both criminal and civil procedure, and consequently its logical relation to medicine and law is self evident. To its status as thus indicated the relation of the medical man is, more definitely, two-fold: that of an expert witness, and that of defendant under accusation of either criminal or civil mal-practice. The difficulties which thus encompass, and the legal demands that bind him, make the sum total of a vast field for caution and study to which it is well to give abundant heed.

The very annoying experience of the writer during the past two years led him to investigate this subject quite closely, and it is the result of that investigation that he desires to lay before the members of this Association in as tangible and yet brief a form as possible. To that end it may be well to premise yet further by stating, in its exact words, the reference to this subject in the revised Statutes of Illinois, as follows:

"Whoever, by means of any instrument, medicine, drug or other means whatsoever, causes any woman, pregnant with child, to abort or miscarry, or attempts to procure or produce an abortion or miscarriage, unless the same were done as necessary for the preservation of the mother's life, shall be imprisoned in the penitentiary not less than one or more than ten years; or if the death of the mother results therefrom, the person procuring or causing the abortion or miscarriage shall be guilty of murder."

It is well right here in the beginning to understand the preliminary relative positions of the principal, responsible, actors in such an implied legal drama.

Neither in Great Britain nor in some of the states of this Union is it so, but under the laws of this commonwealth a woman

*Read by title before the Illinois State Medical Society Springfield, May, 1900.

has the right to abort where, when and by whatever means she pleases, whether natural or artificial, and no one dare say her nay. She is responsible to nothing and to no one, excepting her conscience and her God. She cannot in any way nor under any circumstances be held as particeps criminis before the law. This position has been sustained in every case with whose history the writer is familiar, and may be considered an established fact. While this holding may be in line with simple justice to many a victim of her own indiscretion and man's lust, it certainly often becomes a factor of the greatest injustice to others when the exemption is used as a shield for designing malice and black-mail. When it is considered that the testimony of one thus herself immune, and probably under the guidance and connivance of irresponsible schemers, is competent as against the physician or any one else, unless the former happens to be the paramour, it may readily be seen what a pit-fall has been prepared for the unsuspecting medical attendant. Indeed, he is thus placed absolutely at the mercy of any woman whom he attends in a case of abortion, and the only apparent reason that he escapes as often as he does is the innate desire of the patient for secrecy, and an instinctive gratitude on her part for legitimate services legitimately rendered, as well as those hoped for. But let disaster attend, or death result, and there is woe either of one kind or another for the doctor, it matters not whether it be as principal, accessory, or expert witness. Whichever it is it carries with it its cup of gall and helps make up the distinctive status of the legal picture. It was a sudden conception of this gigantic resource for malicious mischief that led a leading Chicago attorney to recently exclaim that in all the annals of law he could not find a more illimitable opportunity for injustice.

Then, too, when the facts of this recital are supplemented by the additional one of the possibility of a guilty paramour turning State's evidence, and thus doubling the testimony while shielding himself from prosecution, it can readily be seen that the chain

of infamous influences becomes complete and the medical attendant is left in an almost defenseless attitude whether he be guilty or innocent. This possibility was practically illustrated in the recent Barnhardt case before the Peoria circuit court. The advisers of the victim of abortion accused the doctor, whom she had never seen, of furnishing instruments for the purpose, her declaration being substantiated by the testimony of her paramour, who turned State's evidence in order to protect himself from the vengeance of the law, and the only thing that saved as pure a man as the profession contains was the good sense of the jury, who refused, even in the light of the testimony, to doubt the veracity of one of the profession's noblemen when pitted against the character of a self-confessed villain.

There are fewer Supreme Court decisions along this line in the several states than one might suppose, but those that have been rendered are such as to establish the essential elements in cases of the kind.

All court rulings show that the doctor's responsible relations to any case of abortion begin with his first knowledge of the patient's condition. Any advice given that can be in any way distorted to any sort of criminal allusion is competent evidence. For instance an affirmative reply to the query as to whether a certain measure will exert an abortive influence, or even a like answer to the question whether a certain party generally known to indulge in such practice resides in a specified place. This was the ruling in the case above mentioned, as well as in others, and probably has its authority in the statutory reference to the crimes act of March 25, 1881, amendatory of the previous one, and which makes intent an essential element in any case of the kind whether actual knowledge of the condition is had or not. A belief in the existence of pregnancy being alone all that is necessary to show culpability, and when the death of the mother results from procuring the abortion it constitutes murder even though there was no intent to produce the death. This position was fully established by the decision of

the Iowa Supreme Court, as being valid under the common law as well as the act of March 15, 1858, of that State.

Another decisive point is that in administering medicine, or doing anything else with intent to procure miscarriage, where the so doing is not necessary to preserve the life of the mother, the offense is considered complete and the responsibility assumed instantly upon the administration of the medicine. The same is just as forceful in its application if the substance or efforts used would not produce a miscarriage. According to authoritative rulings in the Supreme Courts of Arkansas and Colorado, as well as those of our own state, it is even not essential to conviction that the name of the drug administered be stated. Where it can be shown that there was not the slightest room for supposing that medicine was administered for the purpose of preserving the life of the mother, or that the same had been advised by a physician for such purpose, it is regarded, in the *State vs. Watson*, (30 Kan. 281) as shown beyond all reasonable doubt that the medicine was administered criminally and not for any lawful purpose.

In the case of the *people vs. Vetter*, (34 Hun. 280), the defendant was tried on the charge that he and another had procured an abortion by the use of instruments. The operation itself was in fact performed by such other person and defendant offered no testimony to the contrary, his position being that he was not present and had not advised it. There was no testimony that he had except that of the woman herself, who also testified to the fact of the abortion. It was held that evidence of the finding of certain instruments in the office of the person performing the operation, a month later, was admissible as corroborative of the woman's testimony that the operation had been performed. Notwithstanding this, it is held in *State vs. Hopkins* (50 Vt. 316: Amer. Crim. Rep. 357) that "no inference of guilt can be established by showing that the party charged had the ability to commit the crime."

In the case of the writer, who was indicted as an accessory to the crime of murder,

in the Binkley case, on the grounds that he attempted to shield the criminal by keeping the circumstances quiet, by not securing a dying statement from the patient, and in not informing the coroner, he held that it was no part of the duty of the physician to play detective for the authorities, that the patient absolutely refused to make a valid dying statement, and that neither he, nor any one else for that matter, was under any obligations to inform the coroner, as long as a properly prepared certificate of death had been made out, embodying a true statement of the case, and immediately placed on file in the office of the city health commissioner. The case, however, never came to trial, in that a conference of the prosecuting authorities on the showing, resulted in its being *nolle prossed*.

The reference in this connection to a "valid" dying statement might be further elucidated by reference to several authoritative rulings, (such as *Montgomery vs. State*, 80 In. 338; 41 Am. Rep. 815, and *Rodes vs. State*, 128 Ind. 189) in which it is declared that "dying declarations of the victim of an abortion are admissible to show the *res gestae*, but in the case of the *people vs. Greisemer*, before the Tazewell County Circuit Court it was contended by Judge N. E. Worthington, counsel for defendant and now on the appellate court bench of this State, that in order for a dying statement to be wholly valid as such in the intent of the law, the person making such statement must express herself, not as believing but as knowing that she is about to die. This position was sustained by the trial judge and was probably the only circumstance that saved the defendant from conviction.

Passing from what may be considered more as fixed facts, we come to a brief consideration of the more technically medical features of such cases, in which expert testimony is the chief reliance for the estimation of the court and jury.

Under the revised statutes of this State it is made obligatory for the commonwealth in these prosecutions to show that the abortion was not necessary to save the life of the

mother. In other words, the burden of proof rests upon the State. In this respect the requirements diametrically differ from those of many other States of the Union. It is noticed throughout all these adjudicatory efforts that great stress is laid upon this question of the necessity or non necessity for the premature removal of the foetus in order to preserve the life of the mother. This phase of the determination very strongly impresses the collective mind of the modern jury and is of great weight in determining their position as to a verdict. Any evidence pointing to reasonable doubt is manifestly given unusually serious consideration. This, of course, is to be expected for it is the authoritative duty of the jury to decide as a question of fact whether the abortion in a given instance was necessary to preserve the life of the mother. (*People vs. Myers*, 5 N. Y. C. R. Rep. 120). As technically professional knowledge and opinion are alone adequate to settle this point, the medical expert witness will find it greatly to his own advantage, as well as to that of equal and exact justice, to be thoroughly conversant with all the demands of the case. The requirements under such circumstances are wide, and have reference to a knowledge not only of the pathology, but the normal history and course as well of the pregnant state. They mean, too, a close scrutiny of the relative conditions of the mother and the influence upon them of the state and continuance of pregnancy, and the means used where necessity exists for artificial interference.

In the case of this *State vs. Howard*, in which an attempt was made to throw the odium of responsibility for death upon the writer, it was claimed, in the first place, that a perforation of the uterus of the victim found post-mortem might have been caused by the after attempt to remove the placenta, and in the second place that the fatal outcome might have been due to failure to remove all of the adherent portion of the after-birth by curettage. As to the first, the defense or rebuttal was to the effect that nothing but placental forceps had been used in the attempt, as proven by the several

nurses constantly present, and the testimony of a dozen physicians showed the impossibility of producing such injury by such means. As to the second, it was contended that under the circumstances of existing septic conditions removal, at the time, of the adherent tissue could only have served to open new avenues of infection, and this was likewise sustained by professional opinion satisfactory to the court and jury, who found the defendant, who had the case first in charge, guilty of man-slaughter.

All these problems of physical condition and therapeutic effort are naturally of the gravest importance and deserve the most earnest consideration of every practitioner of medicine, any one of whom is likely at any moment to find himself or herself enveloped in a maelstrom of medico-legal technicalities along this line.

But there is another aspect of this question fraught with the gravest consequences to the medical man or woman; for while it is in some respects a source of danger, it has also within it the elements of protection. That is the lee way, so to speak, which legal authority allows in estimating professional and associate responsibility. This is entirely along the line of logical inference, and constitutes the element of greatest uncertainty and conjecture in all cases. It is that which provokes the most contention and gives rise to the agony of suspense. It is the license of thought which makes suspicion the key to fact. It is wonderful what an estimate of probabilities and assumption of conclusions, the law allows.

In the way of presumptive evidence we have a number of prominent authoritative admissions: Such as the fact of the secreting of a foetus about the building where the offense was committed being competent as evidence (*State vs. Howard*, 32 Vt. 380): Also the character of the house where the operation was performed; that is, a house of ill-fame, in order that the jury might know whether the place was one where the crime might be committed without so great liability of detection (*Hays vs. State*, 40 Md. 633): or, as before mentioned, surgical in-

struments found in defendant's possession, tending to show that he had the means to commit the offense charged (*Commonwealth vs. Brown*, 121 Mass. 69): Or, a showing that the defendant had administered medicine to the deceased which might produce miscarriage (*Weed vs. People*, 3 Thomp. and C. 50): Or, evidence that the defendant had used the same treatment on the same woman on occasions only a few days before, as showing his knowledge of her pregnancy, (*Commonwealth vs. Corkin*, 136 Mass. 429): Or, evidence of health and spirits, etc., of the patient a month afterward (*Commonwealth vs. Wood*, 77 Mass. 11 Gray 85): Or, evidence as to appearance of the bed and clothes, and observation of peculiarly offensive odor, by one who was with the woman and bathed her and changed her clothes the day before she died, (*People vs. Olmstead*, 30 Mich. 431): Or, the confession of the accused that he had given certain drugs to the victim, and that they had made her sick, being sufficient to sustain a conviction when corroborated by other proof that the woman was pregnant. (*Daugherty vs. People*, 1 Colo. 514).

In the case of *Earl vs. People*, (99 Ill. 123), though the defendant claimed that he had not in fact tried to produce an abortion, but had only made enough of a demonstration to make his patient think he had, and accepted a fee after operating several times, and that the death of the patient in his office immediately after the last demonstration was from an affection of the heart, the evidence that there were found in his office two syringes, one of which he claimed to have used—too small to have reached further than the vagina—and an intrauterine syringe, the latter more ready to hand than the former, giving rise to the probability of the fatal result having followed an injection of water into the pregnant uterus, together with the fact of the body of the victim having been found outside defendant's office in the hall, where he had placed it at night eight hours after death, justified the sustaining of a conviction with intent to produce abortion.

The personal character and general repu-

tation of the physician who figures in these cases in other than the capacity of an expert witness, and especially his conduct in connection with the specific case, is of prime importance in determining the weight of his evidence and his culpability in the estimation of both judge and jury in any case of the kind under consideration. It is an element in the circumstantial evidence along the line of inference, and is taken largely into account by supreme court authorities under circumstances of review. The process of reasoning seems to be largely that of the logic of incompatibilities.

In the very conspicuously disastrous case of the *People vs. Cook*, appealed to the Supreme Court of this State under reversed title, an endorsement of the verdict of conviction was made wholly on the ground of the suspicious and unusual conduct of the victim, and the physician who attended her, in meeting in clandestine sort of fashion at a hotel, at the office at night, and finally in the way of escort to the train, etc.

In the way, however, of a lucid indication of the course of reasoning allowed in determining beyond a reasonable doubt the value of a physician's course and conduct, in inferentially establishing a fact under the law, the recent decision of the Supreme Court of this State in the case of *Howard vs. the State*, on appeal, shows more plainly than can any words of mine. In closing the review, and affirming the justice of conviction, the Court says:

"The contention that the evidence failed to prove defendant's guilt with that degree of certainty required by the rules of the criminal law" * * * "we regard as the most important question raised in the case. We have endeavored to give it the most painstaking consideration. The unfortunate victim being dead, the prosecution was driven to rely upon circumstantial evidence to sustain the charge. There was testimony tending to show that when the deceased went to the house of the defendant she was apparently well. She took with her articles of clothing indicating that she expected to remain there for a time and to be put under treatment. The conduct of defendant in re-

ceiving her and immediately assigning her to a room, without conversation, strongly tends to prove that she went there by previous arrangement. The visits to the office during the day, as proved and not denied, afforded the defendant ample opportunity to commit the offense. The manner in which she (the defendant) subsequently removed her from her home, and the deplorable condition in which she left her alone at the boarding house, were acts inconsistent with her entire innocence. It is also in proof that about the time deceased died, defendant left the State and remained absent until arrested and brought back on this charge. From the time she left her patient at the boarding house, almost dying, she manifested no interest or anxiety as to her welfare. As a physician she must have known that all the circumstances surrounding herself and the deceased were such as to cast suspicion upon her, and it is incompatible with her innocence that she should have taken no steps whatever to explain these circumstances or exculpate herself from suspicion."

The foregoing expression only goes to confirm opinion that in connection with the class of cases under discussion the doctor is always "between the devil and the deep sea," and no matter what course he pursues he is amenable, in both opinions and acts, to the untutored judgment and sentimental capriciousness of the average jury, and the possibly designing intrigue of a faithless woman, making the medico-legal status of abortion the bane of professional life.

THE TREATMENT OF TUBERCULOSIS AND OTHER ABSCESSES AND LOCAL INFECTIONS BY PURE CARBOLIC ACID, WITH REPORT OF CASES.

BY DRs. J. R. AND G. W. WALKER, BLUFFS, ILL.

. Often in treating Tuberculous abscesses of joints we open the abscess and instead of healing the pus keeps forming and discharging for an indefinite period and the

tissues in the region are destroyed—be they soft or bone tissues—until the function of the limb is greatly impaired by resultant ankylosis, etc.; in hip-joint disease a shortening of four or five inches in extensive cases. Consequently many good surgeons have in the past advised letting these cases alone and not opening these abscesses of the joint at all, as they frequently did as well without as with it.

About one in twenty abscesses disappear, of its own accord, but practically all need treatment—that is evacuation. Aspiration is a failure, for practically all cases treated in that manner re-fill until opened.

About fifty per cent of these joint abscesses recover after opening, without much destruction of the parts under the old method of treatment and leave a somewhat impaired joint; while in the other fifty per cent, we know how discouraging the results have been and how extensive the burrowing of pus in different directions.

Case 1. Mrs. H.—age, twenty-two—house-wife. Father died at forty-four of Pulmonary-tuberculosis. Mother living and in good health. Called to see patient on Sept. 10—we made diagnosis of tuberculous abscesses in both hip-joints, right-shoulder joint and in interosseous space of right-fore-arm, from elbow to wrist, also on almost the whole posterior of scapula denuding the bone. None of the abscesses had yet broken through the skin. Diagnosis was verified by microscope. We opened abscesses on left-scapula and left-hip-joint and packed with gauze; the next day there was as much pus as when first opened.

Now, we wanted something more effective to stop the pus formation and resorted to the application of pure Carbolic Acid. We put some cotton on a probe and dipped it in pure Carbolic Acid and applied it to the walls of the abscess cavity, and in from one to two minutes applied alcohol in the same manner, as the alcohol is a powerful and speedy acting antidote and stops all burning at once. The acid must be applied thoroughly to all extensions from main cavity, and for that purpose free incision must be made. On the following day no

*Read at the Fiftieth Annual Meeting of the Illinois State Medical Society, Springfield, May 16, 1900.

pus at all was to be found—just a dry wound, such as you would expect from an aseptic operation in healthy tissues. After treating cavities, we did not pack with gauze, but simply introduced the gauze down to the cavity to keep it open for two or three days, so if more pus were forming it could be detected before wound closed, as packing cavity prevents healing. In right hip joint we made two incisions—one on the trochanter, the other posterior to the joint—external to the ischial tuberosity and down into the capsule, so we could apply the Carbolic Acid to the different foci. In the right shoulder, we cut into the joint from below, at outer border of scapula, and also through outer-side through deltoid; in the fore-arm abscess extended from the elbow to the wrist, under the deep flexor muscles and contained an incredible amount of pus—after evacuation of which, we passed applicator all along whole length of fore-arm in interosseous space, so great had been the destruction of tissue and the burrowing of pus. Into this we made an incision at the wrist and below elbow, on anterior side of fore-arm. This cavity, not being very collapsible, filled with blood for a few days, diminishing each day in quantity, but no pus formed at all and all the parts were well in a very short time, after we quit drainage, which was after about three days. For the knowledge of the antidotal effect of alcohol on pure carbolic acid, we are indebted to Dr. Seneca D. Powell, of New York, which discovery is a signal advance in the treatment of all local infections which we can reach. In erysipelas, we find, pure Carbolic Acid a quick acting and sure specific.

The method of application, in this affection, is to paint it over the diseased part and follow, in from one to two minutes, with ninety-five per cent alcohol, which immediately stops all burning.

Last February, we treated a case of erysipelas in this manner—the disease extended over the whole of the right limb, up to above crest of Ilium; patient was a child—age four years—temperature was 105F.

Delirious—after using other methods of treatment fruitlessly for a week, we applied pure Carbolic Acid over whole surface, all at same visit. In three hours temperature was 100F., and in twenty-four hours, was normal and the child's condition was miraculously changed and the skin had none of the characteristic redness. We had another case, of a man forty years of age, in which erysipelas affected the whole face and scalp quite severely—we used this method, the scalp first having been shaven, and in forty-eight hours saw patient again and no trace of the disease was to be seen—just a brownish colored skin, from the effect of the remedy; in from four to six days the skin desquamates leaving a perfectly normal appearance.

In bad cases of ivy poisoning, this method gives good results and immediate relief, but in simple cases other methods will cure before the skin will have had time to recover from the effects of the remedy. We have also found it to be a specific in Chancroid. In Gonorrheal-vulvitis, paint the vulvae and vagina, if need be, with pure Carbolic Acid and douche with alcohol, is an immediate cure, if all affected parts are reached.

There is little pain attending the application—only a slight burning—which is relieved when the alcohol is applied. Where we get best results in abscesses, is by cutting into abscess early, before the bone has been destroyed, or partly so, by the disease process; as the disease attacks the synovial membrane primarily in adults, the chances for an immediate cure, with a simple operation are excellent, but in children the disease attacks the bone, near the joint first, and of course the bone must be resected, if it has progressed to the extent of causing the death of any bone tissue.

If cavity walls are collapsible no glass speculum drainage is needed, as advised by Dr. Phelps, in an article in the New York Medical Journal, of August twenty-first, 1900, for, if all parts are touched by the acid, no more pus will form, so only large cavities, which do not collapse will need

any drainage at all—and in those, only some blood, but no pus will collect, and that soon stops, if the acid has been well applied. Of course these patients need systemic treatment, according to the demands to the existing conditions. By this method all cases of tuberculous joint troubles and common infections can be cured promptly before further destruction has been wrought. We used it in a case of a large mammary abscess with excellent results and no extension of abscess and little drainage being needed.

Whenever we find a large abscess or any kind of local infectious troubles and can apply the Pure Carbolic Acid, we expect immediate good results, and the remedy is perfectly safe to use in all cases.

A little divergence, but probably of interest to the Rhinologist, is the fact, that after a cauterization by chromic acid, the application of ninety-five per cent alcohol gives immediate and almost complete relief from the pain, which is so severe, much better than the relief afforded by Cocaine, although in this we have not experimented extensively.

In a recent article in a journal a very good authority speaks of Carbolic Acid, being a success when applied all through a serpiginous ulcer of the cornea, and in speaking of pain says it is somewhat relieved by allowing water to flow over the surface. Alcohol would have completely relieved all pain and caustic action at once.

PRACTICAL OBSERVATIONS ON THE CHEMICAL EFFECT OF A FEW OF THE OLDER AND SOME OF THE NEWER REMEDIES.*

BY E. L. HERRIOTT, M. D., JACKSONVILLE.

The remedial field for the treatment of disease and correcting derangements of the human anatomy, has been a vast and fertile one, which during the last decade has been assiduously cultivated and made to produce such a superabundance that it is

bewildering—we may say, discouraging to comprehend and put into practical effect, those best adapted to general and practical use. The pharmacist is indefatigable in his labors to ascertain some new principle in plant, herb, root or mineral, that will produce a more favorable effect in a more palatable manner than the products of some other pharmacist, and their clinical reports are expected to be so convincing, that we will lay aside many remedies, that have served us fairly well, for the new ones. Especially is this true of their combinations, wishing to save us the trouble of prescribing, merely making a diagnosis, and the remedy is at once furnished for the patient.

While this is annoying, the practitioner cannot afford to ignore new remedies without investigation, and by practical experience select the grain from the chaff, which gives him a vast deal of work, as there is so much foisted upon him that is worse than worthless.

This paper is based upon practical observations, not scientific investigation. Only the writer shall be held responsible for the assertions made here. We do not expect to suggest anything new or original but merely to call attention to some facts that may not have been observed by all the profession.

Out of the great hoard there are some universal remedies, both among the old and the new, that it is well to study and learn the different effects they are capable of producing under different circumstances, and thus simplify, numerically, our remedies.

In antiseptics, mercury in solution has almost supplanted the use of every other remedy and is of great utility and power. However, in our experience, for universal use nothing exceeds carbolic acid, being also an anesthetic makes it doubly efficient. This is especially true in superficial burns, if applied in weak solution immediately. I have seen results from it under aggravated circumstances, that could not be improved on. It soothes, allays pain and prevents suppurative process, and after a short

*Read at the Fiftieth Annual Meeting of the Illinois State Medical Society, Springfield, May 16, 1900.

time may be followed with an oily paste, weakly carbolized and allowed to remain until recovery is complete. It is fatal to minute organisms, in a weak solution. It readily checks fermentation in the stomach, and administered in very small doses is a digestive stimulant. In larger doses is an efficient anthelmintic. Hypodermically it arrests fermentation and destroys toxins in the blood. It is highly curative in tetanus. It is a valuable cautery, painless except momentarily, as it so soon anesthetizes the tissues. For years I have used little other treatment in puncture wounds in soles of feet, hands and other parts, produced by nails, hedge thorns or any cause, when neglected until grave symptoms followed, and have never been disappointed. The same may be said of the bites of insects, reptiles and animals. It abates large and painful carbuncles and prevents systemic effects when used early.

In follicular tonsillitis when the glands have become pulpy with pus, nothing in my hands exceeds the introduction of the unadulterated acid into every portion of the tonsil, as a local measure. When treated thoroughly in this way, the same conditions rarely obtain again in the adult. When a moist dressing is desired in a traumatic or surgical wound, it proves all that could be wished. Many instances of these cases on my records have given me well grounded confidence. One that occurred in the early days of its use was indeed striking. A young married woman whom I had treated for an hereditary scrofulous affection in the lower limbs, was riding in a farm wagon in which there was a plow. The team ran away, she was thrown out, the metal point of the plow entered the flesh on one side just below the inguinal region and continued down the internal portion of the limb within two inches of the ankle. I did not reach the patient for more than three hours after the accident. While it presented a sanguineous aspect, no deep seated vessels were lacerated. With scissors I clipped off large portions of ragged muscular tissue, cleansed the wound thoroughly with car-

bolic acid in unsterilized spring water, sutured it closely from one end to the other and covered it with surgeons plaster, allowing no drainage and not a crevice for the air to enter, padded the limb with cotton and bandaged it to a long splint. Primary union occurred and when the stitches were removed not a drop of pus was present.

In the different combinations, as sulpho-carbolate of zinc, soda and many others, it has proven very efficient in the treatment of zymotic fevers.

Another antiseptic or germ destroyer of great power, is the oil of sassafras, which perhaps is not recognized to any extent. Back in the fifties, Dr. Resin Thompson of Nashville, Tennessee, whose investigations were much in advance of those times, when the germ theory was little thought of, in his "Treatise on Fever, Its Causes, Phenomena and Treatment," says, "The cause of all epidemic and contagious fevers is organized existences, animalcules or sporules, which float in the atmosphere and in the water and are inhaled into the lungs and permeate the lining of the air vesicles, enter the blood. The sporules being taken into the alimentary canal, enter the lymphatics." He demonstrated a thousand times that the oil of sassafras would destroy insect life, the infusoria in impure water, and tested its power fully in destroying or neutralizing the poison of the sting or bite of insects or reptiles, in one instance the venom of the snake known as the copperhead. He had good reason to believe that by the use of the oil of sassafras in these fevers, the first indication of removing the principal cause would be met, and putting his theory into practical effect he found his expectations fully realized. It was well known throughout that country that Dr. Thompson was eminently successful in treating and aborting fevers, as also were many others who made use of his theory. While I have, in many cases of typhoid fever, adopted it with good success, I have not always succeeded in aborting them as readily as he did.

A comparatively universal remedy is hydrochlorate of ammonia. It is applica-

ble in the widest range of pathological conditions and is remedial in innumerable derangements. As an alterative it is somewhat identical with mercury; as an absorbent it is almost equal to the iodine preparations, being used where either of the former might be prohibited, and continued indefinitely in suitable doses with impunity. It is antiscorbutic, antiseptic, expectorant, eliminative, resolvent and tonic. It tends to render all the secretions freer and more abundant, at the same time lessens the plasticity of the blood changing fibrine into serous exudates. In valvular insufficiency, when there is an excited tumultuous action of the heart, by its slow and steady modification of nutrition and its muscular tonicity, it becomes an important factor in the treatment of these affections. In small doses it stimulates and tones up the digestive apparatus; hence its utility in the treatment of functional derangements of the heart. For the same reason it is productive of good results in amenorrhea and dysmenorrhea, when the former depends upon torpor of the uterine system, and the latter upon chronic engorgement, with or without catarrh. Is beneficial in similar disorders that arise from sympathy with this organ at the menopause. In the same manner it arrests, if it does not diminish, fibrous growths of the uterus.

Its ability in scorbutic affections, enlargement of glands etc., is beyond controversy.

It reduces enlargements of the liver and lessens the tendency to hepatic abscess.

In all neurotic troubles, muscular and nervous affections it is invaluable.

In neuralgias of uncertain etiology, in different forms of headache, if persisted in, will produce more permanent results than many of the more highly vaunted new remedies.

In neuralgia of the stomach of long standing, cure has been complete in patients that could bear persistent continuance of this remedy, but in those cases opium, in any form, must be excluded, to accomplish the desired result.

In acute and chronic diseases of the upper air passages it is unexcelled by any single remedy.

Following muriate of ammonia, we take up the cantharidal blister. This may fall harshly on the ears of some members who have had little or no experience with it, but if they will lay aside prejudice and come to its practical use, they may change their opinion. Instead of it being a harsh measure in cases requiring it, it is quite the contrary. On the surface over an inflamed and congested organ, its first effect is calming, quieting nervous excitement and allaying pain. Second effect, stimulant, increasing activity of the capillary circulation. Third, counter-irritant, inviting deeper circulation to the surface. Fourth, alterative, changing character of exudates. Fifth, eliminative, extracting serum and relieving engorged vessels. Sixth, absorbent, in stimulating the vasa-absorbentia and glands.

Of late in treating pneumonia, acute pleurisy and some other highly inflammatory diseases, the blister has been largely relegated, and its place supplied by poultices, dry packs, stimulating oily liniments etc.

In the short experience of the writer, (thirty-nine years,) in which all sorts of local applications have been employed, none have been so satisfactory and successful as the blister properly used. One does not need to make a martyr of his patient to reap the greatest benefits, nor does he want to use it in every case of pneumonia or pleuritis, but should discriminate where it should be applied. In the highly nervous and excitable infant with delicate skin, other local remedies can be made to answer, and yet a few small patches about the size of a dime can be used even in these cases, to advantage.

As a rule the plaster is not allowed to remain until vesication is produced, as after its removal the application of heat and moisture will cause the external epidermis to fill with serum, and until this occurs, scarcely any pain accompanies the process. Ewart says, "Should he ever

treat a case of pneumonia without blistering, and it should prove fatal, his conscience would haunt him while he lived."

One class of cases I would not expect to derive much benefit from the blister or scarcely any local application. Where pneumonia occurs in a very plethoric subject, full blooded and with a superabundance of adipose. In these cases where there are no contra-indications, the lance, which is another relegated measure, should be readily and freely brought into requisition.

This is not merely a vague unpolished theory, but a practically demonstrated experience, that has proven the highly beneficial and prompt results of this treatment in numerous cases. Calomel, veratrum, aconite and all the antiphlogistics, or on the other hand, quinine, digitalis, etc., would stand little show of so quickly controlling a case of this kind versus the lancet. I will cite one instance only, in which the practice would now be condemned.

A young woman, plethoric, robust and ruddy, weighing 160 to 180 pounds, married five years, no family, had been subject to erysipelas in face, head and shoulders, menstruations irregular and painful. In one of these attacks I was called and decided at once on the tactics. Bled her almost to syncope, then put her on appropriate remedies. The attack was cut much shorter than any previous one, and when recuperated, the patient was never so well in her life. Periods regular and painless, for a short time only. In a year she gave birth to a fine healthy child, and others since; has never had another attack of erysipelas.

It merely needs judgment to decide when venesection would probably be the most preferable method to start with, then have the courage to do it. Every now and then I observe a case of the foregoing character, in pneumonia, prove fatal in four to six days, when I cannot but think free blood letting might have changed the verdict.

A few years ago Prof. Gross, in his address before the American Medical Associ-

ation, referred to venesection as, "One of the lost arts, which should speedily be restored."

Not long since in a case of puerperal eclampsia, near the end of the eighth month of gestation, after delivery of twins without an adequate flow, every remedy was exhausted without arrest of convulsions except when under the influence of chloroform. Bleeding was resorted to and after two or three light attacks they were promptly arrested.

To determine the relative value of the various anesthetics, is to determine the character, conditions and temperament of the patient, then it will depend upon the purpose for which you are using it, the amount of confidence you can instill, and the control you can command over the case, as well as the manner in which you administer it, if it be an adult, to arrive at a conclusion. If the patient is suffering severely, even though they have a dread of being anesthetised, they become more readily resigned, and when resignation is complete the danger is largely reduced. In children if it can be administered during natural sleep, the danger is comparatively nil. The mode of giving it can only be taught by practical demonstration and varied with each individual case. In my own method, I watch closely the movement of each muscle in respiration, in the eyelids and other muscular movements, the pupils etc., with comparatively little concern, only casually noticing the pulse until the patient is so nearly unconscious as not to observe the least anxiety on my part. The paper cone and napkin answer the purpose as well as any, using care not to allow the exhaled air to lodge in the napkin.

In my practice, by far the largest number administered to are those in labor; the next, those in the dentist chair and occasionally for surgical operations.

As to the material used, especially in labor, I find I have no occasion to deviate from the conclusions arrived at in an experience of sixteen years previous to 1880, just twenty years ago, when I read a paper

before this Society on, "Anesthetics in Labor." Before that time I had used the various anesthetics, with a preference for the A. C. E. Mixture, but soon left out the ether, using almost exclusively the two former, and now after twenty years further experience, have no reason to regret the choice, except in protracted surgical cases. It remains an enigma to me why physicians do not more generally adopt this mode of delivery, since it saves such excruciating suffering, thereby husbanding the strength, relaxing the soft parts, warding off eclampsia, preventing rents and lacerations, thus saving the patient dragging out a miserable existence, and in many cases from an unfortunate train of sequences. As to the safety, if there has ever been a fatal case, dependent on the anesthetic while in labor, it has failed to come under my observation. I have administered it where valvular lesions existed, preferring to take chances with it, rather than from the effect of the strain and exhaustion without it, and have never regretted so doing.

In this connection I must refer to the post partum binder, which seems to have fallen into disuse. The utility of proper bandaging is recognized by all, as a necessary therapeutical measure, in enlarged, distended or flabby tissues, in order to reduce the caliber of vessels and restrain a surplus of fluids entering those tissues, and assisting nature in returning them to their previous condition. To be effective a bandage must be properly applied, making equal pressure from the distal to proximal point. To do this one must know how, just so with the post partum binder, if not applied so as to be efficient, the patient is better off without it. It should cause the wearer to feel more comfortable than without it. It will support all dependent parts. It is not absolutely necessary until a short time previous to the patient leaving her bed, and worn from forty to sixty days or longer. Have had patients wear them by preference three to four months, depending somewhat on the season of the year. It is not always necessary to apply it on

the same day of delivery, preferring to have the parts massaged for a day or two, then apply it. It depends somewhat on condition as to time.

Water is perhaps the oldest, but by no means the least effective of therapeutical remedies, and one that is often abused. I frequently find persons suffering from chronic constipation, using large quantities of warm or hot water daily, via rectum, by the advice of a physician, in the hope of curing their trouble, while they are sinking "deeper into the mire." This use relaxes the mucous lining, and by absorption the connective tissues, blunts nerve sensation and destroys their contractile power; dilates the caliber of the whole lower canal, converting it into a large inactive pouch, forming a receptacle for fecal matter, where it evaporates its gases and moisture and becomes comparatively immovable; while on the other hand, a small quantity of cold water used night and morning acts as a toner and contractor, diluting the contents and stimulating the parts to expulsive action. This together with suitable diet, proper systemic medication, may undo the wrong produced by the former. In treatment for intestinal obstructions with excessive emesis, the flushing of the colon with hot water, under some conditions becomes an absolute necessity. A case where every symptom pointed to intussusception was relieved by inverting the patient, introducing a gentle stream of hot water into the rectum, using massage until the whole canal to the stomach was distended, then seating him on a commode, it was slowly discharged and a continuous passage was had, the first in forty-eighth hours. Appendicitis and kindred affections have frequently succumbed to this treatment.

In 1897 I reported to the Morgan County Medical Society a number of cases treated in this way without a fatality. The additional treatment consisted of hot packs, turpentine stupes, with an occasional hypodermic of morphia, olive oil by the stomach, when it could be retained, and in three instances where the removal of ob-

struction to free passage did not obtain within forty-eight hours, oxygen gas was resorted to, procuring the desired effect.

The principal is—dilute, dilute and evacuate. Dilate the constricted intestine, wherever it may be. Dilute and evacuate its contents and restore nature to her supremacy.

Urotropin, that has recently been much extolled, has not to any extent, yielded satisfactory results in cystitis of different origins, while it did partially clear up the urine, diminishing the phosphates and changing it to acid where it was slightly alkaline; in neither males nor females did it relieve the frequent inclination or burning sensation in micturition, nor the distressing tenesmus that followed. It is claimed by Nicolaier, that it dissolves uric acid, but its diuretic properties are not apparent in every case, and that the way it produces its results is still very uncertain. I have certainly had little if any beneficial results from it in prostatic cystitis.

In fact, so far as my knowledge extends, our armamentarium is very deficient in benign medicinal remedies for the treatment of this very common and distressing disease in the elderly male. And a full discussion of this subject, I think would be of general interest.

Loebisch, Casper and Citron believe in a splitting off of formaldehyde if the reaction be acid, yet an attempt to demonstrate formaldehyde in the urine of those taking urotropin, has been unsuccessful. In a case of cystitis, in a female, in which it was thought there was some improvement during the first few days of its administration, the symptoms afterward increased in severity and the remedy was suspended for a few days, and again repeated with the same results. In a male subject, a graduate in medicine, but engaged in the drug business, cause largely prostatic with some urethral stricture, who had the benefit of learned and experienced counsel in his case together with hydropathic treatment at different resorts, with varied success, came under my care for a time while uncertain reports of urotropin were being

published, and I was not inclined to recommend it. After some improvement and passing from my immediate care, he was advised to use it, and believing he was receiving benefit from it, continued it, perhaps in increased quantities, for some time, when suppression of urine ensued and death followed from uremic poisoning. While it cannot be asserted positively that urotropin was the sole cause, it looks as though it was a formidable one.

Paraldehyde, neither old nor new, deserves mention. As a hypnotic it usually acts very promptly, producing a quiet restful sleep, leaving no unpleasant after effect. It does not interfere with the appetite nor disturb the stomach or bowels. After sleep no headache or lassitude follows, the sleep passing gradually into a natural slumber, restoring apparently a tired and exhausted brain.

In functional heart disturbances it quiets the action and allays flitting pains in the chest. Its sedative action is not so certain as the hypnotic, though used hypodermically it has cut short a severe sciatic attack.

Heroin, that just now is receiving such favorable comment in irritable coughs, without any of the unpleasant effects of opium, has in my hands decidedly failed, proving much more objectionable in this respect than codeia, apomorphia or acetate of morphia.

I have had no experience with dionin, a later product.

As one of the later products of digitalis, none is more deserving of notice than Merk's German Digitalin. It is soluble in cold water, with no unpleasant taste, and while it does not take the place entirely of other forms of digitalis, it is extremely valuable where a remedy of this character should be continued a length of time. It is a heart and arterial tonic, improves their action, relieves short and difficult breathing when caused by faulty circulation, stimulates the uterine system, corrects engorgements and irregularities, thereby abates debilitating discharges, renews and renovates the female organism, bringing

new life with cheerful hope, full of encouragement. In the elderly subject affected with atheromatous or sclerotic condition of arteries, by the extended use of digitalin their condition is much improved and life made endurable.

Of the coal tar derivatives, acetanilid is entitled to the first consideration, since it is a product hampered by no proprietary claims, so cheap as not to invite adulteration, and is capable of yielding as many beneficial results and no more dangerous, than many of its class, if properly administered. It is the base of most combinations foisted upon the drug market and sold to the unwary physician at an enormous profit.

Why do not medical men form their own combinations, either for the druggist to compound, or to be done so in their offices? When it is understood, as it generally is, that it is an antipyretic of much power, an analgesic, antiseptic, diaphoretic, soporific, tranquilizer and a heart depressor, it proves a powerful weapon in the hands of the discrete prescriber and it is unnecessary to call attention to its application in the treatment of fevers. It is susceptible of combining with many of the most desirable remedies. The first, our favorite, muriate of ammonia prevents the untoward effect upon the heart. Then comes quinine, strychnia, arsenic, salol, salicylate of soda and many others. Not readily soluble, the capsule is a convenient form in which to administer it. A combination suitable to the case, in the treatment of rheumatism and neuralgia has proven very convenient and efficient and not unpleasant to the palate. It becomes a hemostatic by depressing the circulation, and is a *sine qua non* in controlling post partum hemorrhage when accompanied with excessive contractions, commonly called "After Pains."

Sulfonal, its colleague is more efficient in insomnia.

I now have the gland therapy under observation, so far with varied success. In cases of goitre, a simply enlarged thyroid,

the administration of the thyroid extract has proven rather satisfactory, while in the cystic enlargements very little benefit has been derived by its administration.

As to the treatment of salpingitis, ovaritis and allied troubles of the uterine annexa, so far am able to report no untoward effects from the administration of parotid and mammary gland, extract, but as yet little if any benefit.

Peptenzyme which claims to contain the digestive agents of seven digestive organs and glands, has served an excellent purpose in my hands in fermentative dyspepsia and indigestion.

The New York State Medical Society has begun the publication of its transactions in monthly journal form, following directly in the footsteps of the Pennsylvania and Illinois State Medical Society. The only exception being its acceptance of advertising matter which is to be regretted. It will prosper.

CORRECTION.

In the discussion (March number) of the Chicago Neurological Society it was made to refer to the treatment of syringomyelia with cheiromegalia when it should have been to acromegaly:—

Dr. Sydney Kuh reported three cases of acromegaly treated with pituitary bodies. In the first case the existing headache and mental depression seemed somewhat relieved, while in the other two cases the patients were benefited to a more marked degree: headache, vertigo, general weakness, hyperidrosis and projectile vomiting ceased and in one instance trophic disturbances in the nails of the hands showed well marked changes for the better. In case III cramps in the calves of the legs appeared after the patient had been under treatment for nearly 1½ years and the woman became very much depressed mentally.

The essayist stated that he did not believe the results to be due to suggestion only. He believes that the disease of the pituitary body is the cause of acromegaly. In every case of this malady in which a thorough post mortem examination was made, the gland was found to be affected not only in man but also in the one case known to have occurred in an animal. There is a good deal of evidence to show that the hypophysis exerts some influence upon our physical development, that it may not only cause acromegaly but under certain conditions the opposite condition, stunted growth.

The Illinois Medical Journal

PUBLISHED MONTHLY.

Official Organ of the Illinois State Medical Society.

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All remittances for subscriptions should be sent to E. J. Brown, Treasurer, Decatur, Ill.

The Society does not assume responsibility for any statements or opinions published in this journal.

Entered at the Postoffice at Springfield, Ill., as second-class matter.

Springfield, Ill., April, 1901.

APPOINTMENT.

The American Congress on Tuberculosis will be held in joint session with the Medico-Legal Society in New York City, May 15th and 16th next. As the representative of the Illinois State Medical Society at this meeting I have appointed Dr. J. A. Robison of Chicago.

G. N. Kreider, President.

ANNOUNCEMENT.

At the last annual meeting the following recommendation of the preliminary meeting was adopted. "That a committee of three be appointed by the President of the State Society to meet the afternoon of the day preceding each annual meeting; all members of the State Society shall be invited to meet this committee, and at the preliminary meeting, questions of material interest to the profession shall be discussed and recommendations made by this committee." The work contemplated by this committee being exactly in the line of the work of the Committee on Medical Legislation I have decided to appoint the said committee on Medical Legislation to take charge of this meeting, which will be held

at the Y. M. C. A. hall, Peoria, Monday, May 20, 1901, at 1:30 P. M. All members of the State Society and very especially the officers of all local societies are requested to attend and take part in this meeting. Last year most important work was done at this preliminary meeting and there is no reason why it should not be continued at this meeting.

G. N. Kreider, President.

NEW TRUSTEES OF THE EYE AND EAR INFIRMARY.

A. E. Prince and W. T. Montgomery were recently appointed trustees of the Chicago Eye and Ear Infirmary by Governor Yates. Both these gentlemen are members of the Illinois State Medical Society in good standing and are eminently qualified for the positions to which they have been called. It is to be hoped that the signs will point to a continuation of the merit system inaugurated by the former Board.

W.

STATE BOARD OF HEALTH.

Gov. Yates has again evidently considered the State Society in appointing Dr. James A. Egan a member of the State Board of Health, the secretaryship of which he is to retain. Formerly it was the custom for the secretary to be a full member of the Board, Gov. Altgeld being the first to depart from it.

It would be superfluous to speak of the satisfaction that this appointment gives as all of the members of the Society are fully cognizant of Dr. Egan's fitness for the position. During his incumbency of the office of the last four years he has proved himself to be the right man in the right place. We believe he will continue to give the same faithful service in the future that he has in the past.

W.

NEW MEDICAL SOCIETIES.

Since the first day of January the following Medical Societies have been established or re-organized. Concerning some of them we have not received full data and would be pleased to obtain the same for the next issue of the Journal. The Tri-City Medical Society organized in January by the practitioners of Venice, Granite City and Madison. The Henry County Medical Society; the Henderson County Medical Society; the Carroll County Medical Society, and the Union County Medical Society. The Jackson county physicians have changed the constitution of their Society to conform to the requirements for affiliation with the State Society and Massac county is about to take the same step. Altogether seventeen societies have been organized or re-organized since the first issue of the Journal, twenty-one months ago. The first complete calendar of regularly organized Medical Societies in Illinois will be found on the last pages of this issue.

K.

MEDICAL LIBRARIES.

Particular attention is called to the minutes of the Sangamon County Medical Society in this issue where will be found notice of a movement looking to the establishment of a medical library and headquarters for this county in the new library to be built through the munificence of Mr. Andrew Carnegie. Mr. Carnegie we understand has provided money for libraries in several Illinois cities and the profession are recommended to take advantage of this opportunity to secure concessions which will be valuable alike to the community and themselves. A few hundred dollars expended each year by the city will secure those valuable encyclopaedias, atlases, journals and works of reference to which every medical man should have access, but which

few are fortunate enough to possess. Library directors should see the desirability of buying fewer trashy novels and providing more valuable educational works for the life savers of the community.

K.

COLLODION IN EXOPHTHALMIC GOITRE.

Dr. Allen T. Haight recently presented to the Chicago Medical Society the results of treating exophthalmic goitre by collodion, applied over the thyroid gland. In four of the cases all symptoms of the disease have disappeared, the longest standing case after being pronounced cured, being two years. One was greatly improved after two months treatment and one case still under treatment. Fresh flexible collodion is used and kept continuously applied; its action being entirely mechanical, causing compression of the gland, therefore a less blood supply with consequent less toxemia.

In addition to the local application he gave iodide of potassium in syrup of hydriotic acid of varying doses. This method of treatment can be readily applied by the physician and if successful in the hands of the general practitioner will certainly be hailed with pleasure as it will obviate the necessity for surgical interference, either by enucleation or hypodermatic injections.

W.

THE NEW ACT REGULATING THE PRACTICE OF MEDICINE IN MISSOURI.

Our neighbors on the other side of the river, until now the breeding ground of medical frauds of all kinds, have just cause for congratulation on the recent enactment of an excellent law. With very slight changes, the bill is the one adopted by the Committee on State Legislation of the State Medical Society.

The bill was vigorously fought by the

Christian scientists, who brought to the capitol delegation after delegation, and speaker after speaker, not the least of whom was an ex-governor and a member of the national committee of one of the great political parties—but all to no avail.
K.

CALLED DOWN.

In January, 1901, the New York State Medical Association, the only truly good and ethical medical combination in the Empire State, began the publication of the New York State Journal of Medicine. Oblivious to the fact that Pennsylvania its near neighbor had been issuing its transactions in strictly ethical journal form for four years and that Illinois had been publishing a journal twice as large as its own for a year and a half, the editors announced that "this departure on the part of the New York State Association marks a distinct era in the affairs of a state medical organization." Very properly Dr. Koenig, editor of the Pennsylvania Medical Journal objected to this statement and in the following editorial on this subject pays us a neat compliment for which we make thankful acknowledgment.

"The statement in the general announcement that this departure on the part of the New York Association 'marks a distinct era in the affairs of a State medical organization' is an error, for not alone does this Journal represent such a departure, but the Illinois State Medical Society also publishes its transactions in journal form and in a manner and style that might be accepted as a model by any State medical organization."
K.

THE SURGEON OF THE SMALL CITY.

While the surgeons and the physicians of the metropolis are wrangling over the

"division of fees," the "dispensary evil," the "multiplication of Medical Colleges," etc., there is being evolved in many of the smaller cities a type of successful surgical specialist, who, contented with his lot is doing equally successful work in small but beautifully appointed and modern hospitals, upon patients, four-fifths of whom pay him a fair, and often generous fee, for his services. There are no dispensary cases, no "grand stand plays" in college clinics upon "deadbeat" patients who could have paid a good fee, no trouble about the division of the fee with the physician who has sent the case, for he assists in the operation and after treatment for a joint fee, with the full knowledge and consent of the patient. The country doctor solves the question by going with his patient to the near-by larger city surgeon, and by being present, if not assisting in the operation, fixing and collecting the joint fee, and conducting the after treatment when possible. In these smaller cities not "one-half of the sick are being cared for gratis by the medical profession," nor are "three-fourths of the surgical operations performed gratis" as was recently stated concerning Chicago patients in the Times-Herald, by a Chicago surgeon.
B.

Correspondence.

Editor Journal:

I hope it is the mode of some one to take note of progress made in sanitary affairs. The Governor has seen fit to make the Secretary a member of the Board of Health and to re-appoint Dr. J. A. Egan which virtually gives us an efficient health officer of the State with associate members of the Board whom I am informed can now draw a legal per diem. Organized as now, more efficient work ought to be done because the work required of the Board, both sanitary and executive, can be divided up, part su-

perintended by the President, and part by the Secretary and if the perview of the Board can be widened as to statistics—vital, mortuary and sanitary, most all that is required can be accomplished.

I believe a liberal construction of the law as to professional conduct, will enable a large part of the itinerant's advertisements to be cut off, which being very pernicious, should be done if possible. Certainly we can congratulate ourselves on the past two year's progress.

A. C. Corr.

East St. Louis, Ill.

BRIEF NOTES FROM THE PACIFIC COAST.

BY JOHN H. HOLLISTER, M. D.

SECOND SERIES.

There are at least four classes of persons who visit Southern California for either a brief sojourn or for permanent residence. The first of these is that well-to-do swarm of tourists who are lovers of travel and are intent upon having a pleasant winter's outing and a good time generally. They are by no means few in number and their kind is rapidly multiplying. They are everywhere welcome, since they contribute largely to both public and private revenue. They are everywhere estimated as the crop most easily convertible into ready money.

The second class is made up largely of elderly people, who wisely seek to shun the severity of eastern climates, especially in winter and come at length to be more or less permanent residents. And usually they gain an added lease of life by reason of such genial surroundings.

A third class is comprised of those who seek in this climate to rear their delicate children. While not so numerous it yet numbers many of our most valuable people; those who having had sad experiences with older children, seek in this healthful region to insure survival of younger ones, that they may preserve for themselves a name, and the crowning blessing of dutiful children, in their old age.

Where cholera-infantum is almost never known; where sun-exposure can be had with comfort from morning until evening, during nearly every day in the year; where the nights are always so cool that coverings are needed; where sleep is always refreshing; and where malarial diseases are never present—such must be an ideal home for sickly babies and delicate children, and such is Southern California.

The fourth class and by far the most important, from a medical standpoint embraces those who have been over-born by over-work and must needs seek rest and most of all that much larger number of persons who suffer from various forms of pulmonary affections.

The first three classes hardly require mention. The tourists can care for themselves or command the services of those who will care for them. Elderly people know where they have a good thing, and happy are those who can command the means for thus securing such comfortable surroundings.

Not many of the sons of toil can leave their homes and means of livelihood, to seek this paradise for babies; and yet it is a glad-some thing to know that such a paradise exists.

To the men and women who have been over-worked and for whom rest and genial surroundings are the most available remedies; to the "have-beens" of other days, who must free themselves from further care it is only needful to say "there remains for them a rest," this side the grave, and they can find it in Southern California.

Before making special reference to those who are suffering from pulmonary affections, it is needful to premise a few words with reference to atmospheric temperatures. Nearly every person from the east, surely in winter and not infrequently in summer experiences material discomfort from the cold.

This arises from the fact that while exercising under the noonday sun, one may swelter with the heat, yet at that very moment the temperature is several degrees lower in the shade and at evening, almost uniformly near the coast, it falls to about

60°. This necessitates warmer clothing and fires at evening especially for those who have been accustomed to a temperature of 72° in their eastern homes. Oftentimes little provision is made here for artificial heating and so at evening and in the early morning people shiver with a feeling of cold, and slight catarrhal affections are not uncommon. Still when it is remembered that the temperature seldom falls below 56° on the coast at night, and as seldom rises above 75° during the day, it is easily perceived that no great effort is needed by artificial heat or by added clothing to secure ones comfort. And yet that little effort is just as essential here as it would be in the eastern states.

An important fact never to be forgotten is, that these uniformly cool nights are especially conducive to the securing of refreshing sleep. Given a residence in a pure atmosphere, where the days are balmy and brilliant and where nights are always promotive of sleep and a vigorous demand for food is almost sure to follow. Here lie the secrets of success which give to California its just and pre-eminent fame as a health-restorer.

I had intended in this paper to describe some what at length the questions, "What can California do for Consumptives," but as its proper consideration would entirely transcend my limits I must defer its answer until another issue.

1419 De la Vina st., Santa Barbara.

DISCUSSION ON THE PAPER OF DR. EDLEN.
(See Page 455, March Number.)

DR. L. R. RYAN, Galesburg: I have listened with a great deal of interest to this excellent paper; and I must say that the devil it not always quite as bad as he is painted. I think we are apt to criticise our public school system without a thorough consideration of the whole matter. I know it is the prevailing idea that the children in our public schools are daily overworked and do not get sufficient exercise. And again, that they are being forced to take up too great a number of studies. I think if you will study the question carefully, you will see that they are following an entirely different plan from what they did a few years ago, and while the child is learning much more, and appears to be forced, it is simply following the natural method of acquiring education and is not under any strain whatever. I have four or five children at school; I take a great interest in this matter, and I have carefully studied the question. My

children come home enthused with their work; they are not tired, but are in excellent physical condition simply because I believe they are acquiring knowledge by natural methods.

In regard to high school students; while they may seem to be officious and over-confident, I think it is naturally the condition of youth. They think they know a great deal more than their superiors, or more than people did a few years ago. These are matters that are simply natural and ought not to be criticised too much, because it is not the fault of the school, but it is the fault of the individual himself.

With reference to the matter of the teachers being ignorant or not paying sufficient attention to the physical condition of the pupil; I find they are very solicitous in regard to the actual physical condition of their pupils. I myself have had a great many pupils referred to me for examination, because the teacher has noticed in school that the eyes of certain children were defective; they could not read as well as they should. In nearly every instance the teacher was right. Of course, this matter of physical condition of school children has been very much agitated during the past few years, and I am glad to say that nearly every public school teacher is now taking an active interest in this matter. We should not criticise our public schools and the teachers in them too severely. I believe we are working in the right direction.

DR. KATHERINE MILLER, Lincoln: I was very much pleased with the remarks of the last speaker. There are schools in some communities in our State that are coming up to the model which has been set. There must be, however, a large number of communities in which neither the people nor the physicians have yet been aroused to the necessity along these lines, and in which the conditions, to a great extent, prevail which the essayist has mentioned. I cannot altogether endorse the sentiments in regard to overworked pupils, for I have become convinced from my observations in the matter, that the multiplicity of studies of which he complains is a help to the pupil. It allows the teacher to present a change of work, and we know that for the mind of the child a change of work is rest. If we watch a child at play, we will notice that it plays with one thing for a few minutes, and then changes to something else. Children must have a multiplicity of objects of interest to engage them in a healthful manner. This multiplicity of studies, therefore, is right in line with the physiological development of the child. If the teacher understands his or her business, the work would be presented in such a way as to make it a process of healthful development of both the mind and body of the child. The child's physical development is largely conditioned upon its normal mental development.

The doctor spoke of studies that were practically of no use. I question whether we ought to use that expression in regard to any study which might possibly be thought of in connection with our public schools. For instance, has no one any use for a knowledge of mathematics except the bookkeeper or the astronomer? Has no one any use for a knowledge of physiological

and mental development, of psychology, and such studies, except he who is teaching those branches? If this were true, I fear we would have very few pupils. Many studies are helpful, not because of their direct use in future life, but because of the all-around mental development which is secured by their study, and the youth who has learned to use the faculties of the mind and body at his best, is the one who is best equipped for whatever profession or occupation he may undertake. Whether he be a carpenter, preacher or physician, he is best equipped for that work and has the best command of all his faculties. We will find no study, either in the public school or in any college, which is not helpful in the development of some faculty of the mind and body. We should not use the expression that pupils are having studies thrust upon them that are of no use to them.

A wonderful advance has been made by the introduction of laboratory methods. In medical colleges great progress has been made in this regard, and it is strange indeed if out of the newer methods introduced into our public school system there should not come some good. New methods have been introduced into the lowest grades of public schools that are up-to-date, and it lies largely with the physicians of their respective communities to see that public sentiment is worked up to the point of introducing these new methods into our public schools. By so doing we will find it of the greatest possible advantage, not only to the children of today, but to the future generations of the State, as has been suggested by Dr. Edlen.

It is true, that very many high school graduates do not use the English language correctly, but this is not due to the fault of the teacher, but to the parents. We are prone to use those expressions that are employed by our parents, whether we are high school or college graduates, which were learned by us before we were six years of age, and it is not fair to hold the high school responsible for the use of bad English. It is exceedingly difficult to overcome in the course of three or four years the habits of the preceding seven years.

As to the wisdom of the high school pupils, in the colleges for many generations we have had the Sophomore classes, the class of wise fools, who knew everything before they began to study much of anything. We must all of us go through that unfortunate condition of mind when we know more than our parents and preceptors, and they must be looked upon with some degree of allowance as they look back to the state of their own mental development.

I am glad to hear the question of physical culture brought forward. The physical development of the child has been overlooked in connection with its mental development, and as a consequence children have become one-sided in this way. This is particularly true of the girls who are getting into young ladyhood, because at the age of from twelve to thirteen they think they are young ladies, and are prone in time to follow their mothers' precepts, and be so quiet and so ladylike and prim in manner that they do not indulge in the ordinary sports which they should be encouraged to indulge in. I am very glad to see an athletic in-

terest developing in high schools all over the country. Athletic contests should be encouraged and carried into the lower grades in our country districts, where they might be made profitable in the direction of child-study and development.

Perhaps it is hardly in place for me to discuss one feature or point which the paper did not mention. I want to protest against home-study, which is insisted upon by many teachers. I would urge physicians to demand that home-study shall not be exacted of children in the lower grades. It is unnecessary. Under proper hygienic conditions in schoolrooms, the average child would not need to study at home until the grammar grades are reached, and the teacher is making a mistake who exacts such study, and I do not believe it either redounds to the welfare of the school or benefits the pupils individually when home-study is insisted upon. I am aware that some superintendents of schools, as well as teachers, require that children of eight or nine years of age shall study one lesson at home. As physicians we ought to protest against it. The school-hours, which are not extremely lengthy in most schools, are broken into by longer recesses.

DR. A. C. COTTON, Chicago: On the whole, I think we should commend Dr. Edlen for having presented this subject to us in such an able manner, although we may differ somewhat from him in regard to his conclusions. I take it, that our differences are largely due to detail and locality rather than to the general principle. Neither one of the speakers who have discussed the paper really differs in his conclusions from the essayist. This subject is one of ever growing interest, and should receive a free and thorough discussion, although were we to deal with every phase of it the discussion would be interminable, because we cannot touch the question of child-study or child-education, or school management, but what everybody has something to say. And this is a most healthful sign of the times, because there is no subject of more paramount importance, looking forward to a better appreciation of anatomy and physiology, and particularly to hygienic requirements placed thereon by the developmental period. We may well hesitate before following some lines that have been followed heretofore, because already we have the clinical results of what we may expect in more extensive form in the future. But this subject of child-study is in the air, and great improvement has been made in the matter of school hygiene. Any one who is a close observer of the public schools, and who has children in those schools, finds a great deal that is commendable and very little to criticize. The writer of the paper is so unfortunate as to live in a community where advanced application is not to be seen in the public school, but wherever the school may be, there is a good deal in the personal equation of the teacher herself or of the superintendent, and this will have more weight than any other factor in school hygiene, as well as in the arrangement of the curriculum for the different ages, so far as it can be arranged for classes. Still, no matter what may be the per-

sonal equation of the teacher or superintendent, he must under certain circumstances and conditions be badly handicapped by the apathy or stupidity of the Board of Education that employs him, and whose servant he is. It seems to me, the medical profession is more largely responsible for the want of better management of our public schools than we have been willing to admit. The question as to whether or not we are our brothers' keepers, has been sufficiently discussed. We will admit that, I think, that it is the duty of every physician to make himself felt along the lines of sanitation in the community in which he lives, and I believe he is hardly worthy of belonging to our great profession if he hesitates to do so. We owe it to the community in which we live to make ourselves felt, and if we are better equipped by our scientific line of study for the appreciation of such facts, then it is our duty to do so. How shall we do that? Every community ought to realize the value of the physician to the extent of putting a member of our profession on the school board. Here comes in the question of the doctor in politics. Some physicians fold their hands and tell us not to mix in politics for fear of making enemies in the community. It is the duty of every physician, who has children of his own, or not, to investigate and to work in the direction of improving the condition of our public schools, etc. If a physician is unwilling to accept a position on the Board of Education himself, he should see to it that one of his professional associates is represented on the school board. His views should be heard in regard to the erection of school buildings, with particular reference to the arrangements for light, ventilation, proper furniture, and other important details. And to do this, he must study thoroughly the subject of school hygiene. It is our own fault if we are not up to the requirements of modern science.

With reference to home-study, I am glad the last speaker brought up that phase of the subject. Recent observations, made in an intelligent manner, show that there is a limit to the capacity for education at different ages. The six year old boy or girl may stand, according to age, the fatigue of the educational system better than the child of eight years of age. The deductions of Dr. Christopher, of Chicago, and Dr. Krohn's diagrams illustrating the results of measurements of many school-children, show the period at which fatigue is reached. Many other illustrations might be given to show that children of certain weight and physique, height or age, can endure the tedium of the educational process in the school-room without much detriment in other words, they can concentrate their attention upon a subject for only so many minutes at a time. Those are matters that the physician can best understand. He does not commit them to memory as the teacher may have to do, who is not so well grounded in physiology and anatomy. Physicians should receive appointments on school boards. They should educate the people of their respective communities. They should deliver public lectures regarding these matters. Let Dr. Brown or Dr. Black ad-

vertise himself a little in this way. It will open the eyes of the public, and if Dr. Black should not speak the truth in regard to these matters, other men should do so. I believe in stirring up things along this line.

DR. FRANK W. GOODELL, Effingham: It seems to me, that we have almost knowledge enough among the masses of the people. We need more wisdom, and not so much knowledge. It has been shown by the measurements of skulls of people who died many, many years ago, that while they did not have as much knowledge as we possess today, still they had more sense than we have. Knowledge and wisdom are as far a part as day and night, and a nice differentiation between the two is given by the poet, Cowper:

"Knowledge and wisdom, far from being one,
Have oftentimes no connection. Knowledge dwells
In heads replete with thoughts of other men,
Wisdom in minds attentive to their own.
Knowledge, a rude unprofitable mass,
The mere materials with which wisdom builds,
Till smoothed and squared and fitted to its place,
Does but encumber whom it seems to enrich.
Knowledge is proud that he has learned so much;
Wisdom is humble that he knows no more."

A child or man can take on a greater load of intelligence than he can carry mentally. Beware of the man who has got a little knowledge and much wisdom. He is a dangerous competitor. It has been said that our children are over-educated; that they have received too much education. Education is so common in these days that it is almost worthless. A first-class hired girl can get \$15.00 per month and her board, while it takes a fairly well educated girl in the country districts to make \$15.00 per month exclusive of board in teaching school. It is wisdom we want. Our children should be taught wisdom. They should be taught to utilize what knowledge they have received. Because a man has a number of very fine instruments, it does not necessarily make him a surgeon. It is the capability of using what he has acquired that makes him great. Let our children use the intelligence they have got, and with less intelligence, and more wisdom, they will be more successful.

DR. T. C. MURPHY, Manito: After listening to the remarks of the previous speaker, I can not resist the temptation to give my experience. I have two daughters of whom I am proud. One of them I sent to college to make a teacher out of her, and she came home with her health greatly impaired, so that now she is in the South a physical wreck. She had the constant mental strain of fourteen studies. The practical part of education that is given children in our schools is largely a failure. It is only education in name.

With reference to the matter of pupils of from six to eight years of age studying until bedtime, I have to say that a teacher sent a note urging that I allow my children to pursue their studies at night, if possible, as it would help them in their studies. I do not allow them to study at night, but to play and kick up as much as they please. I believe if physicians would go into our public schools and receive representation on our school boards, much good could be accomplished in the way of better ventilation, proper light, etc.

DR. EDLEN (closing the discussion): I am very glad to find that so much interest is being taken in this question. I did not expect all of the speakers to agree with me. In my paper I dealt principally with the physical development of children and their hygienic care. I stated that if their physical development was taken care of as much as their intellectual culture, there would not be such grave injuries from over-study. Undoubtedly a great many children are able to go through all of the courses of study without any material mental or physical injury, while there are many others who are wrecks for life after they have graduated, or even before they have entered the high schools. This is to be seen every day, and the fact that Dr. Ryan has had so many opportunities of examining the eyes of school-children shows that there is something wrong with the present system. There is no use in denying it, because if there were more chances for recesses, for physical development and hygienic care in our schools, there would not be any such deviations from health as now exist. Of course, the members of our school boards have hard places to fill. There is no doubt about that; at the same time, they can do more than is generally done. I believe that we should have more physicians on school boards. The only thing for us to do is to educate the public up to the importance of that fact, that we must have schools that are better managed than they are now, although improvements have been very great of late years. But we cannot stop there, because it would be detrimental to the children and to future generations. I hope that this subject will receive the attention that it deserves.

County and District Societies.

The Vermillion County Medical Association met the evening of March 8th, in the city hall at Danville.

Dr. J. M. Guy was elected president pro tem. for the evening.

Minutes of the February meeting adopted as read.

The board of censors reported favorably on the names of Drs. J. B. Morton, B. I. Poland and V. C. T. Kingsley, followed by their election to membership. Dr. Glidden presented the name of Dr. S. R. Wilson and Dr. Guy presented the

names of Drs. G. H. Post, J. L. Finley, A. H. Kimbrough, S. W. Jones, G. W. Howard, W. H. Paul and A. L. Fox.

The paper of the evening was by Dr. E. E. Clark on Nasal Reflexes which brought out a general discussion with numerous questions for the essayist to attempt answers.

The Association extended its thanks to Dr. Guy for his efforts in placing the importance of the Association before non-members in a way to secure so many new applications for membership.

There being no further business the Association adjourned to the April meeting.

E. E. Clark, Secretary.

Meeting of the Medical Society of Rush College, Feb. 4, 1901.

Dr. J. Clarence Webster demonstrated specimens illustrating the Anatomy of Pregnancy as studied by Frozen Sections. Also a specimen of Ruptured Uterus removed from a woman in whom there had been a neglected impacted face presentation.

Dr. Philip Schuyler Doane reported a case of Acute Intussusception in an infant with an operation and recovery. Relapse in three and a half months with a second operation and recovery. A healthy, female child, three months old, screamed out suddenly with severe pain, turned pale, was somewhat cyanotic, began to vomit. Three hours later there was a passage of blood and mucous per rectum. The pulse was rapid and weak; temperature, sub-normal. A mass was detected in the ileo-cecal region. There was no reduction of the tumor after a high rectal enema. Seven hours after the first symptoms an operation was made by Dr. F. Henrotin, in whose practice the case occurred and a single intussusception was found, about fifteen centimetres of the small intestine with a portion of the cecum being invaginated into the large intestine. This was easily reduced and the child made an uneventful recovery.

Three and a half months later there was a recurrence of the intussusception, the symptoms being so like the first that the mother made a diagnosis and hurriedly summoned a physician. An operation was done ten hours after the first appearance of pronounced symptoms, the child being in a serious condition. No reduction of the intussusception, which was found after the abdominal incision, was possible by injection of air into the intestine. After considerable difficulty, the invagination was reduced. The partially gangrenous appendix was removed and three stitches of fine catgut were then placed in the walls of the ileum and cecum, near their junction, in such a way as to make almost an acute angle. The child made a good recovery. She was seen by Dr. Doane seven months after the operation and was apparently in perfect health. The importance of very early diagnosis and immediate operation was dwelt upon.

Dr. Alfred Schalek reported a case of Pseudo-Phosphaturia with an Unusual Complication. True phosphaturia is a pathological condition, in which an excessive amount of phosphates is excreted. It is due to some disturb-

ance of the gastro-intestinal organs, general fatigue and loss of flesh. If free urination is prevented in some way, calculi may form in the kidneys or the bladder. Other local complications are rarely mentioned in the literature. A case is cited here, in which phosphatic deposits, consisting of large masses of amorphous phosphates of lime, were persistently present in the urine, the time extending over three years. The white sediment formed in the bladder and amounted, by sight, to about one-quarter of the volume of passed urine. The urine was alkaline from fixed alkali. The patient was decidedly neurasthenic, and lost twenty-five pounds in weight after the phosphaturia began. During all this time he suffered from a purulent urethral discharge, which may have been originally of gonorrhoeic origin, but which, while under observation, on repeated examinations never revealed any gonococci. This, and the fact that no lesions were found in any part of the genito-urinary tract, with the coincident presence of the phosphates in the urine, led to the conclusion that the latter were the cause of the irritation of the urethral mucous membrane.

Different attempts were then made to correct this anomalous feature. Urotropin finally accomplished this, though only during the time of its administration. The urine cleared up and shortly afterwards the urethral discharge disappeared. Several times the urotropin was discontinued, with the consequence that the whole cycle of symptoms reappeared. This proved the relation between the phosphaturia and the urethritis. The rationale of the action of the urotropin upon the excretion of phosphates is obscure. It is too weak a base to influence the reaction of the urine; neither can its antiseptic properties be taken into account in the absence of any pathological conditions of the genito-urinary passages.

The quantitative analysis gave the rather surprising result that the amount of phosphates was normal, in spite of their persistent deposition in the urine and their obvious effect upon the general system.

James B. Herrick, Secretary.

Meeting of Medical Society of Rush College, March 4, 1901.

Dr. Theodore Ticken demonstrated a specimen of Acute Ulcerative Endocarditis, with a large perforation in the posterior segment of the aortic valve, and almost complete destruction of the anterior cusp by the ulcerative process. The valves were likewise studded with vegetations, many of which were calcified. The mitral valves were likewise studded with vegetations, which extended down the chordæ tendinæ as far as the apex of the papillary muscles. In addition to the ulcerative process on the aortic valves, an area of ulceration was found at the attachments of the bases of the semilunar valves, which extended through the walls of the aorta, into the peri-aortic space. The heart was greatly hypertrophied and showed some interstitial fibroid changes. In the same case were found an annular pancreas and a sacculation of the duodenum, caused by the constriction of the

intestinal lumen by a band of glandular substances, springing from the head of the pancreas in such a manner as to entirely encircle the lower part of the duodenum (descending portion), forming a true "Pancreas Annulare." The pancreas was normal in size and consistency, and cut with about normal resistance. The head measured 4 cm. in its vertical and $3\frac{1}{2}$ cm. in its transverse diameter. The annular portion measured $2\frac{3}{4}$ cm. at its narrowest portion and was 1 cm. in thickness. The ducts were in every way normal, and no abnormality was noticed in its vascular supply. In a hurried review of the literature he was able to find only four other cases reported to date. Although the patient had been under observation for nearly a year, no symptoms referring to the gastro-intestinal tract were ever manifested during life.

Dr. James B. Herrick presented a specimen showing obstruction at the bifurcation of the popliteal artery produced by an embolus from the heart, the seat of chronic valvular and myocardial disease.

He also showed a specimen of a suprarenal tumor where the tumor mass had invaded the inferior vena cava. This finding, which had been suspected during life, explained the early occurrence of an edema of the lower extremities and had been one determining factor in deciding against operation for the removal of the kidney.

Dr. Herrick also showed specimens of blood from six cases of lymphatic leukaemia. He referred to the unknown etiology of the disease, to its clinical separation into acute and chronic varieties, to the resemblance of the former to an acute infection, and of the latter to Hodgkin's disease, and also dwelt upon the variations in the blood picture as shown in his six cases. The statement so frequently made that in lymphatic leukaemia nucleated red corpuscles are very rare, was disproven in four of the six cases, three acute and one chronic and specimens were exhibited showing numerous nucleated red blood corpuscles. He spoke also of the great variety in the picture presented by the blood according as the larger or smaller mononuclear forms prevailed in a given case. In one case, a rapidly acute one, there had been about two per cent of myelocytes. Another interesting combination he had seen was that of a patient with carcinoma of the neck and jaw with diffuse hyperplastic enlargement of the lymph glands and with the typical findings of a lymphatic leukaemia, the blood counts never showing less than 100,000 leucocytes.

Dr. Hektoen presented several specimens illustrating interparietal and intraparietal extension into the heart of aneurysm of the beginning of the aorta, and of dissecting aneurysm of the heart. He described the spatium periaorticum cordis of Vestberg. The spatium periaorticum cordis is situated at the root of the aorta and is covered by the reflection of the epicardium as it passes over the aorta behind the auricles and forms the floor of the sinus transversus pericardii. It is in this space that interparietal dissecting aneurysms of the heart most frequently are found by rupture or ulcer-

ation of its internal wall, the aorta. The specimens demonstrated illustrated the formation of dissecting aneurysm in this space as a consequence of ulcerative endocarditis of the aortic valves, and in consequence of the rupture into the space of small aneurysms in the beginning of the aorta developing primarily upon the basis of a syphilitic aortitis.

He also demonstrated a specimen of a large interparietal aneurysm in the right ventricle originating in the sinus Valsalvæ of the aorta, and also an aneurysm originating in the left ventricle by two small openings and forming a large cavity upon the lateral and posterior aspects of the left ventricle. The post mortem in this case was made by Dr. LeCount and the question as to the dissecting character of this aneurysm was discussed, the conclusion reached being that the aneurysm most likely originated in a suppurative process in the myocardium and probably reached its present large extent in consequence of more or less dissection of the walls of the left ventricle.

Dr. H. G. Wells reported two cases illustrating the relief of portal obstruction in hepatic cirrhosis by plastic peritonitis. In one the condition was found at autopsy, there having been no evidences of obstruction during life; the numerous adhesions of a chronic fibrous peritonitis were found largely replaced by thin-walled vessels, full of venous blood, up to the size of a crow's quill. The portal obstruction was due to an obstructive biliary cirrhosis from impaction of a calculus in the common bile duct. The other case was that of a man with excessive ascites of about twenty months duration, requiring frequent tapping, and due to alcoholic atrophic cirrhosis. A large umbilical hernia, resulting from the ascites, became strangulated and was reduced by operation. No attempt was made to establish a plastic peritonitis and there was but little intra-abdominal manipulation, yet the ascites never recurred up to the time of the patient's death, eleven months later, from carcinoma of the pharynx.

James B. Herrick, Secretary.

Meeting of the Chicago Pathological Society, March 11, 1901. Dr. L. Hektoen, President.

Dr. Maximilian Herzog read a paper on Primitive Splenomegaly, or Anaemia Splenica. The paper was based upon a study of the literature of the subject and upon two cases in which Dr. M. L. Harris had performed splenectomy. Particularly one of the two cases, both of which got well after the removal of the spleen, had been studied carefully since two years had elapsed since the operation. Before the operation there had been present in this case a marked diminution of the erythrocytes, a low color index and an absolute and relative reduction in the number of the leukocytes. The blood had improved very much since splenectomy and there had developed a marked eosinophilia. An examination of the spleens removed showed a marked endothelial proliferation with enlargement of the blood lymph-spaces (pulp-spaces). Herzog stated that he had in vain sought for many de-

stroyed blood corpuscles inside of lymphendothelia, a picture as it is, for instance, found in typhoid fever. Considering the fact that the blood condition had always improved in all cases of splenomegaly in which splenectomy had been performed provided the patient did not die from the operation, it appeared conclusive that the changes in the spleen must be looked upon as the primary factor in the disease. We therefore must look to the pathologic changes in the spleen as the cause of the blood destruction. From an examination of the two cases as well as from a study of the literature, it appears that no evidence can be found that lymphatic endothelia destroy the blood by directly taking up blood corpuscles. Herzog therefore advances the theory that lymphatic endothelia of the spleen and of lymph glands, secrete an erythrolytic ferment and in this manner destroy old and worthless blood corpuscles. We have in splenomegaly an enormous endothelial proliferation and probably in consequence an enormously increased production of the erythrolytic ferment, which when present in such a large amount destroys many healthy blood corpuscles. If the spleen is removed the source of the increased production of the erythrolytic enzyme is removed and the blood improves rapidly and permanently.

Discussion of paper of Dr. Herzog: W. A. Evans referred to case of Dr. Ferguson in which there occurred petechial spots in the skin and where the spleen became smaller before death. He spoke of a case reported by Dr. Dalton before the London Clinical Society (which was clinically one of splenic anemia, but at autopsy the enlargement of the spleen was discovered to depend upon passive congestion, due to constriction by an anomalous colon).

Leo Loeb declined to accept the theory of an enzyme which destroys the red blood cells in the spleen.

E. H. Ochsner referred to a case which clinically was splenic anemia, and which improved for a time after the spleen was removed, but subsequently died. There were a few small peritracheal glands found at autopsy, which were tuberculous. A possible infection in such cases must always be considered.

B. W. Sippy spoke of the similarity of these cases to the ordinary lymphatic pseudoleukaemia as regards blood changes, general asthenia, etc., a similar enlargement of the spleen also being observed. In many cases of splenic anemia there is enlargement of the lymph glands, although it may be slight. In all cases the bone marrow has been converted into a fetal condition, like that found in many cases of pseudoleukaemia lymphatica. He objects to the term splenic anaemia, and considers the one splenic pseudoleukaemia to be the proper one. He believes the primary cause cannot be positively located in the enlargement of the spleen. In the case described by himself, the fibrous changes were much more marked than in Dr. Herzog's. This he thinks may depend upon the longer duration of the disease.

P. Keys: In the specimens of Dr. Herzog, the proliferation involves all the structures of the

spleen, and such a condition cannot be due to a primary proliferation of any one element, as the endothelium.

T. R. Crowder presented sections of an amyloid spleen with unusually distinct endothelial linings in the vascular spaces.

M. Herzog in closing said that he did not claim that there was proliferation of the endothelium alone, but that the increase in the endothelium was enormous, so much so that the condition had been mistaken for an endothelioma. Dalton's case had not been considered as it was too indefinite. One reason for separating these cases from lymphatic pseudoleukemia is because they are curable by operation.

Dr. Theo. Ticken exhibited a specimen of pancreas annulare, with resulting constriction of the duodenum so that a large fusiform sacculatation of the latter had formed.

Dr. H. M. Ricketts presented specimens of experimental general blastomycosis in the dog produced by the intravenous inoculation of an organism obtained from a case of blastomycosis of the human skin.

G. H. Weaver, Secretary.

The Sangamon County Medical Society met in the County Court room, at 8 p. m. Dr. Dixon, presiding.

The minutes of the February meeting were read and approved. Upon favorable report of the directors the following were elected to membership in the society: George Bley, Jr., Beardstown; C. C. Patchen, Beardstown; S. C. Hart, Waverly.

Dr. Kreider introduced the following resolution:

Whereas, by the beneficence of Mr. Andrew Carnegie, a new library building is about to be constructed in this city and a liberal sum appropriated by the city government for its maintenance, and,

Whereas, any means of educating the medical profession by means of scientific books tends to promote the health of the people and general welfare of the city. Therefore, be it

Resolved, that the Sangamon County Medical Society respectfully requests the Library Board and City Council to provide and furnish a suitable room in the new library building for the meetings of this society, and set aside a certain sum of money not less than \$300.00 per annum for the purchase of medical books and periodicals to be consulted by the medical profession of this city and county.

The chair appointed as a committee to take charge of this subject, Drs. G. N. Kreider, A. E. Prince, Margaret T. Shutt, G. F. Stericker and B. B. Griffith.

Dr. Joseph Brayshaw presented the subject of Trichinosis. After defining the disease described the two forms of the *Trichina Spiralis*—the intestinal and muscular.

Trichinae are found in all parts of the world. The encapsulated worms find their way to the stomach of man by his eating raw pork which contains them. The capsule is digested off and the parasite liberated, in seven days after in-

gested multiplication begins and apparently continues for several weeks. They are distributed by the blood current and in about two weeks become full grown trichinae and are encapsulated partly by a substance thrown out by themselves resembling chiton and partly by the muscles. The danger of infection depends on the mode of preparing the meat in large pieces, it frequently happens that a portion of it is not raised to the boiling temperature. Infection is not so frequent here as in Germany.

Attention of the profession is called to it particularly since 1860. Still many cases are overlooked as dissecting room statistics show that from one half to two per cent. of all bodies contain the parasite. In striped muscle the parasite causes an intestinal myositis. The muscles are at first pale and later cloudy. The fibers undergo granular degeneration and fragmentation. The worm rolls up and in about two months become encapsulated. The parasites are usually more plentiful near the tendons. Sometimes enteritis and swelling of the mesenteric glands. Fatty degeneration of the liver, heart and striped muscle sometimes occurs. The blood shows a leucocytosis amounting to from 20,000 to 40,000 per c. m. m. with eosinophiles from 20 to 70 per cent.

The first symptoms sometimes appear soon after eating the meat—consisting of nausea, vomiting, loss of appetite, colicky pains in the abdomen and sometimes diarrhoea and bloody stools—which may terminate in collapse and death. Usually it is from seven to nine days before the symptoms appear. Then there is muscular weakness and usually pain resembling rheumatism—increased by motion and pressure. The muscles of mastication and respiration are more especially affected. The muscles are swollen, tender and rigid, sometimes causing contractions and contractures. Oedema of the face and sometimes of the extremities is nearly constant. Fever usually present, may be remittent closely resembling typhoid, intermittent and irregular or continuous but usually high. Bronchitis and Pneumonia are common and important. Ascites, Dropsy, Hiccough, Hemorrhages from intestines, nose and genitals and abortions are occasionally seen. In the first case or in sporadic cases the diagnosis is not easy. Osler says, "Until quite recently I have had no clinical experience with the disease, the probability is of course that I frequently overlooked cases, just as might have been done in three or four of the cases here reported, etc."

It may be mistaken for Muscular Rheumatism, Pneumonia, Typhoid Fever, other forms of Myositis, Malaria, and in its early stages almost any of the acute infectious diseases, and especially Grippe. Muscular pain, oedema of the face, and blood conditions will serve to point to a diagnosis. Removal and examination of a piece of the biceps muscle will confirm the diagnosis. A history of having eaten raw pork meat is also important.

The death rate in different outbreaks varies from 2 to 30 per cent in the U. S., 122 died out of 456. If diagnosed within 24 hours the indications are to wash out the stomach. Purgatives are indicated at any time during the disease. During the invasion stage the indications

are to keep up the strength, procure sleep and relieve pain. In all cases I've had time to examine the histories of, the diagnosis was made by an examination of the blood and during the last three years there has been no case reported in which the diagnosis was made by other means, and the diagnosis was confirmed by finding the Trichinae in the muscles. Of sixteen cases all had leucocytosis, increase of eosinophiles and decrease of Neutrophiles. All but one had oedema of the face or eyelid. In thirteen there was elevation of temperature, muscular tenderness and weakness; in ten muscular stiffness and rapid pulse, headache and profuse perspiration; in nine, abdominal tenderness; in eight, diarrhoea, oedema of extremities and rapid breathing; in seven, palpable spleen, marked dyspnoea, thoracic pain, heavily coated tongue and iliac gurgling; in five, pain in bowels, constipation, cough, bronchitis, friction sounds, rose spots and great thirst; in four, albuminuria, anorexia, enlarged liver, dirotic pulse, insomnia, subnormal temperature, distended abdomen, expectoration; in three, photophobia, delirium, erythematous, rash, diazo-reaction, intermittent fever and nose bleed in two and in one each the following: urinary casts, Pneumonia, Pleurisy, Pea-soup stools, collapse, nausea, vomiting, venous thrombosis, colicky pains and Widal's Reaction. Symptoms which might lead to almost any diagnosis.

Of the sixteen five were diagnosed Typhoid fever having all the characteristic symptoms of the same; two malaria; one pleurisy; two pneumonia; of my two cases one was treated all the time for typhoid fever—the true condition was suggested by the patient asking for raw meat; examination of the ham and a piece of his muscle demonstrated Trichinosis.

The other was called Rheumatism, but the parasites were found in a piece of rare shoulder meat left over.

Examination of the blood showed absence of malaria. Neither case was diagnosed early enough to do the patient much good.

It is the belief of the author that in the examination of the blood conditions we have that better means and the hopes of having this diagnostic point more generally recognized is the excuse for this paper.

Dr. J. W. Kelly expressed his appreciation of the paper, the subject had been so thoroughly treated there was nothing more to be said.

Referred to Paget's discovery in '33 as the starting point of investigation on the subject. Microscopical investigation had been beneficial beyond estimation.

Dr. A. E. Prince thanked the author for the valuable information contained in the paper and the painstaking method of its presentation.

Dr. Brayshaw in closing spoke of the investigations of Brown and Osler in Baltimore—the rarity of a diagnosis was what suggested to him the subject.

Dr. A. E. Prince's paper on "Suggestive Therapeutics," will appear in a later addition of this Journal.

Dr. A. D. Berry expressed the opinion that we were all hypnotists to a greater or less degree. Functional cases and neurotics were benefited by suggestive treatment.

Thought the Osteopath practiced suggestive therapeutics for all it was worth, success often depends on mentality.

Dr. Kreider spoke appreciatively of the paper and said it was a subject of great importance. Belief in self is very essential to success. Hypnotism as possessed by solicitors is remarkable and aids them wonderfully in doing their work. Spoke of several cases of disease due to imagination entirely. Irish race are peculiarly susceptible to suggestion. Auto-suggestion in using remedies frequently of great assistance to the physician.

Dr. S. E. Munson related the seeing of a case when on a railroad journey when the patient said her trouble was chronic appendicitis. Thought the profession were giving more attention to the subject of suggestive therapeutic and with satisfactory results to their patients and themselves.

Dr. J. W. Kelly considered the subject one of vast importance to the successful practitioner of medicine. Detailed a case of severe abdominal pain followed by hysterical paralysis—cured by hypnotism.

Dr. J. N. Dixon referred to some clinical cases seen in Europe—one was a case that could not be anesthetized but was hypnotized and operated upon. Spoke of a patient that was laboring under the impression that there was a fish bone in her throat, was cured by impressing the patient with the idea that a fish bone had been removed. Spoke of a case of pseudo knee joint disease cured by a fake operation. Osteopaths use suggestion largely and successfully. The speaker once administered alcohol for anesthesia under the impression it was chloroform with the use of suggestion it worked successfully.

Dr. Prince in closing said he did not touch upon hypnotism because it was a part unto itself. Referred to Dr. Prentice who treated several very wealthy personages and their friends by suggestion with great benefit to his own bank account.

Hypnotism and suggestive treatment unadvisedly used he considered dangerous.

REVISED ROLL CALL OF THE PEORIA CITY MEDICAL SOCIETY.

* Member of the State Medical Society.

! Contributor of \$1 to the Legislative Fund.

- *Allison, W. R., Peoria.
- Baker, R. W., Peoria.
- Bellinger, W. H., Peoria.
- Bradley, E. H., Peoria.
- Bradley, R. D., Peoria.
- *Brobst, C. H., Peoria.
- Brown, J. S., Peoria.
- *Boal, Robert, Lacon.
- *Collins, Clifford W., Peoria.
- Corcoran, A. S., Peoria.
- *Conibear, W. H., Morton.
- Chapman, Dr., Deer Creek.
- Coon, Bethina, Hanna City.
- *Davis, C. E., Peoria.
- Davison, A. W., Peoria.
- !Dombrowski, P., Peoria.
- Du Mars, R. A., Peoria.
- *Eckard, E. M., Peoria.

- Finnell, J. J. L., Peoria.
 Gerzema, F., Peoria.
 Green, J. L., Peoria.
 Hanna, R. A., Peoria.
 Hasson, Ed., Peoria.
 Hayes, H. M., Peoria.
 *Hensley, J. W., Peoria.
 *Horwitz, S., Peoria.
 Johannes, A., Peoria.
 *Kanne, A. J., Peoria.
 *Kerr, R. A., Peoria.
 Kors, M. L., Peoria.
 *Lucas, Emma J., Peoria.
 Lucas, Frank B., Peoria.
 Mansfield, D., Washington.
 *Marcy, M. S., Peoria.
 McFadden, L. A., Peoria.
 McFall, D., Peoria.
 *McIlvaine, T. M., Peoria.
 Miller, J. S., Peoria.
 Murphy, J., Peoria.
 *Niergarth, W., Pekin.
 Paine, J. C., Peoria.
 Plummer, A., Peoria.
 Roberts, J. C., Peoria.
 *Roskoten, O. J., Peoria.
 Sedgwick, H. M., Peoria.
 Schoaff, H. A., Peoria.
 Shaw, Viola, Peoria.
 Sheppard, J. H., Peoria.
 *Sloan, W. L., Peoria.
 Steele, H., Peoria.
 *Stewart, J. T., Peoria.
 Studer, E. B., Peoria.
 *Sutton, E. M., Peoria.
 *Stephenson, B. M., Peoria.
 Skelly, John I., Pekin.
 *Thomas, C. D., Peoria.
 *Wallace, Jeanette, Peoria.
 Whiting, M., Peoria.
 Waln, J. R., Peoria.
 *Whitten, H. H., Peoria.
 *Will, O. B., Peoria.
 Willis, W. H., Peoria.
 Wright, J. E., Peoria.
 Yoder, H. L., Morton.
 Zoote, Earl W., Dunlap.
- Curry, Thos. W., Streator.
 Corney, Matthew J., Spring Valley.
 Chalfant, C. D., Streator.
 Conley, D. S., Streator.
 Cook, Chas. E., Mendota.
 *Cook, E. P., Sr., Mendota, (life member).
 Cook, E. P., Jr., Mendota.
 Corbus, J. C., Sr., Mendota.
 Corbus, J. C., Jr., Troy Grove.
 Colbourne, J. A., Ransom.
 *Dicus, Jos. F., Streator.
 *Dicus, George A., Streator.
 Downey, Wm. L., Wenona, (life member).
 Daly, V. M., Pontiac.
 Edwards, Jos. W., Mendota.
 *Ensign, Wm. O., Rutland, (life member).
 Evans, P. M., Minonk.
 *Everett, E. S., Lacon.
 Franklin, John H., Spring Valley.
 Felkner, N. F., Amboy.
 *Fogg, C. E., Wenona.
 *Freeman, Julius A., Millington.
 Fraser, Wm. H., La Salle.
 Field, A. E., Plattville.
 Frazier, F. R., Yorkville.
 Flint, Oliver J., Princeton.
 *Garrison, Harriet E., Dixon.
 Guthrie, Fred A., La Salle.
 *Goble, Ezra T., Earlville.
 Gregory, J. A., Long Point.
 *Grim, Adam, Franklin Grove.
 Garwood, Jessie P., Princeton.
 Gaylord, Edwin, Pontiac.
 Goodheart, John W., Lexington.
 *Gordon, R. Earl, El Paso.
 *Gillespie, T. W., Lostant.
 *Hunt, C. C., Dixon.
 Hirsch, Samuel, La Salle.
 Hunt, F. R., Austin.
 *Hoffman, J. R., Chicago.
 Howard, W. E., Ohio.
 Hansen, Frank, Tonica.
 *Hendrick, Stephen O., Henry.
 Hanmore, John J., Malden.
 *Johnson, Chas. B., Champaign, (honorary member).
 Jennings, M. B., Streator.
 Jones, T. W., Cornell.
 *Jump, D. W., Plainfield.
 *Kreider, George N., Springfield, (honorary member).
 *Keefer, J. F., Sterling.
 *Keefer, J. R., Sterling.
 *Knoblanch, J. I., Metamora.
 Kleinsmid, Jas. A., Troy Grove.
 *Landis, Benj. F., Tiskilwa.
 Lytle, James P., Princeton.
 *Lord, Frank H., Plano.
 *McArthur, L. L., Chicago, (honorary member).
 *Murphy, J. B., Chicago, (honorary member).
 *Moyer, Harold N., Chicago, (honorary member).
 *Martin, Franklin H., Chicago, (honorary member).
 Mansfield, W. A., Washington.
 Mason, Wm. C., Walnut.
 *Marshall, J. A., Pontiac.
 Martin, B. A., Lacon.
 Miller, R. B., Millington.
 *Middleton, A. B., Pontiac.
 Newkirk, Garrett, Chicago.

REVISED LIST OF THE NORTH CENTRAL ILLINOIS MEDICAL ASSOCIATION.

- Artin, Arsen S., Hennepin.
 *Brown, Sanger, Chicago, (honorary member).
 *Boal, Robert, Lacon, (honorary member).
 *Bonar, B. L., Streator.
 *Burke, P. M., La Salle.
 *Burrows, Thos. W., Ottawa.
 Baker, J. B., Pontiac.
 Bickel, Amos S., Chillicothe.
 Banta, C. F., Eureka.
 *Brower, Daniel R., Chicago, (honorary member).
 *Barnes, S. M., Fairbury.
 Ballard, H. F., Chenoa.
 Bannister, T. O., Odell.
 Brock, J. E., Coal City.
 Bradley, C. M., Cornell.
 Buellesfield, M. E., Troy Grove.
 *Cotton, A. C., Chicago, (honorary member).
 *Corr, Albert C., Carlinville, (honorary member).
 Cheadle, Clarence M., Lee Center.

Owens, Alfred E., Princeton.
 *Owens, Hattie M., Princeton.
 Oliver, E. W., Wenona.
 *O'Malley, W. H., Kinsman.
 Otis, N. M., Fairbury.
 Orelup, C. E., Streator.
 *Patrick, Hugh T., Chicago, (honorary member).
 *Percy, Jas. F., Galesburg, (honorary member).
 Peterson, Sophus G., Rutland.
 *Palmer, Chas. A., Princeton.
 *Pettit, James W., Ottawa.
 Pearson, J. J., Pontiac.
 *Perisho, E. E., Ancona.
 Pike, Wm. A., Ottawa.
 Peterson, Fern A., Somonauk.
 *Rabe, Wm. L., Dwight.
 Robinson, Fernando C., Wyanet.
 *Ross, John, Pontiac.
 Rohrabough, E. E., Chicago.
 Schmitz, Peter, Leonore.
 Scouller, John D., Pontiac.
 *Stetler, Thos. H., Paw Paw.
 Stout, Joseph, Ottawa, (honorary member).
 Sexton, Roy, Streator.
 Soule, C. E., Morris.
 Schonneseofer, Wm., Lostant.
 Schmalling, Hannah N., Fulton.
 Taylor, John J., Streator.
 *Thomas, Chas. D., Peoria.
 Thomas, D. E., Lacon, (life member).
 *Thompson, L. G., Lacon, (life member).
 *Tweddale, James, Washburn.
 Turner, F. A., Sandwich.
 *Will, O. B., Peoria, (honorary member).
 *Weis, Edmund W., Ottawa.
 Wilcox, Frederick W., Minonk.
 Wilcox, E. A., Minonk, (life member).
 *Wilder, Wm. H., Chicago.
 White, E. C., West Brooklyn.
 Wyatt, J. T., Eureka.
 *Watts, Edward L., Triumph.
 Wormley, Guy J., Sandwich.
 Ziesing, Henry, Peru.
 Zinser, Harley A., Roanoke.

Marriages, Deaths, Change of Address

DEATHS.

(Furnished by the State Board of Health.)

Amet, Charles P., at Waukegan, Feb. 25.
 Allen, Charles C., at Chillicothe, Jan. 23.
 Brittingham, Littleton T., at Hannibal, Mo., Feb. 24.
 Barkwell, Wesley W., at Tucson, Arz., Jan. 28.
 Booz, William, at Carthage, Feb. 20.
 Bennett, S. B., at Canton, March 1.
 Beach, R. E., at Vandalia, Jan. 23.
 Conrad, Chas. E., at Quincy, Jan. 21.
 Craig, William D., at Aledo, Jan. 23.
 Cecil, Thomas, at Centralia, Dec. 11.
 Davis, John G., U. S. A., Nov. 1.
 Davison, William M. W., at Kenosha, Wis., March 2.
 Darling, Joshua B., at Chicago, Jan. 9.
 Dodge, William C., at Chicago, Jan. 12.
 Denison, Edward L., at Marion, Dec. 25.
 Fellows, Henry B., at Chicago, Jan. 12.
 Gardner, Lucy M., at La Porte, Texas, Feb. 6.

Gissy, Charles E., at Breese, Feb. 21.
 Hodges, Fred J., at Ashland, Wis., Feb. 18.
 Hockett, O. O., at Newman, Feb. 8.
 Hatheway, Joseph C., at Ottawa, Jan. 21.
 Hall, Randolph N., at Chicago, Jan. 11.
 Hankins, John W., at Carlinville, March 19.
 Ingalls, Ephraim, at Chicago, Dec. 18.
 Martin, Mathew C., at Milwaukee, Wis., Feb. 21.
 Marsh, Nathan W., at West Point, Miss., Feb. 15.
 Morison, James R., at Chicago, Feb. 25.
 Miller, Gotlieb, at Ottawa, Jan. 14.
 Moore, D. O., at Bloomington, March 15.
 O'Reilly, Thomas, at St. Louis, Mo., Feb. 24.
 Osborn, Charles, at Dubuque, Iowa, Feb. 2.
 Reid, J. A., at Davenport, Iowa, Feb. 4.
 Ross, W. Frank, at Champaign, Jan. 23.
 Spencer, Horace, at Plainfield, ———.
 Simmons, Electa U., at Erie, Feb. 28.
 Smiley, J. C., at Kewanee, Feb. 27.
 Schlagenhauf, George, at Altamont, Jan. 10.
 Sloan, Wilbert K., at Moline, Jan. 1.
 Seebold, John P., at Pearl City, Marche 21.
 Townsend, Justice, at Springfield, Dec. 20.
 Vaile, De Witt C., at Rochelle, Jan. 28.
 Woodside, John S., at Chester, Feb. 12.
 Waite, David V., at Rockton, Jan. 26.
 Woodruff, Henry T., at Harvard, Dec. 16.
 West, A. F., at Casey, Feb. 19.

CHANGES OF ADDRESS.

(Furnished by the State Board of Health.)

CHANGES IN CHICAGO.

Blech, G., 103 State st. to 240 Blue Island ave.
 Champlin, S. H., 1002 Madison st. to 114 S. Oakley Boulevard.
 Farrell, P. J. H., Hotel del Prado to 92 State st.
 Gabel, E. H., Mary Thompson Hospital to 740 N. Park ave.
 Grace, Ralph, 750 Grace st. to Hotel Windemere.
 King, C. —, 390 N. Clark st. to 987 Jackson Boulevard.
 Ling, F. B., 474 Ogden ave. to 633 Van Buren st.
 Meany, J. J., 2107 W. Madison st. to 1770 Chicago ave.
 Nash, E. N., 126 S. Oak Park Boulevard to Cook County Hospital.
 Poray-Kaczorowski, J., to 8401 Superior ave.
 Pelton, B. H., to 311 West Polk st.
 Smith, Cecil E., 321 Hermitage ave., to 440 W. Harrison st.
 Van Benschoten, William C., 641 Minerva ave. to 3442 Greenwood ave.
 Wall, Charles D., 636 W. 14th st. to U. S. Marine Hospital.
 Xelowski, John H., to 709 Milwaukee ave.

CHANGES FROM CHICAGO.

Ahern, J. J., to Cresco, Iowa.
 Alderson, J. J., to ———.
 Baxter, George E., to Griggsville.
 Davis, W. C., to Indianapolis, Ind.
 Driver, Gerry S., to the Philippine Islands.
 Earel, J. W., to Abingdon.
 Gruber, Max, to Millstadt.
 Herb, Isabella C., to ———.
 McCarthy, Robert G., to Dover.
 Prestley, James P., to Newton.

CHANGES TO CHICAGO.

Angell, Katherine L., to 3608 Lake ave.
 Cole, Alfred L., to 163 State st.
 Roberts, Dwight J., Europe to Venetian Building.

Shannon, L. W., Granada, Kans., to 398 Wells st.
Steers, Marie Jean, Freeport to Auditorium Building.

Tice, F., Omro, Wis., to 1044 W. Monroe st.
Walker, Mary A., to 59 State st.
Warbrick, John C., to 18 46th st.

CHANGES FROM ILLINOIS.

Adkerson, James S., Unity to Tennessee.
Atwood, R. J., Champaign to ———.
Boyer, J. S., Brocton to ———.
Bennett, J. D., Assumption to Florida.
Chenowith, Albert, Dewey to Iowa.
Chavers, Joseph, Tamms to ———.
Carley, David H. W., Ludlow to ———.
Dowler, Moses M., Beardstown to Kansas City, Mo.

De Cow, R. Hanson, Rantoul to ———.
English, J. N., Litchfield to Bucatunna, Miss.
Evans, Everett M., Casey to ———.
FitzSimmons, John J., Longview to Ohio.
Gilbert, W. S., to Jamestown, N. Y.
Gourley, W. W., Cairo to Kentucky.
Gates, Le Mont A., Shannon to Colorado.
Grossman, D. S., Milledgeville to Dallas Center, Iowa.
Hamilton, Howard, Bethany to Colorado.
Higgins, Gussie Z., Whitefield to St. Louis, Mo.
Ireland, Wm. W., Unity to Texas.
Morse, Arthur W., Dwight to San Francisco, Cal.

McKinnie, Ebenezer L., Viola to Colorado Springs, Colo.

McClure, Leonard D., Carthage to Dodds, Iowa.
McClain, J. D., Cairo to Missouri.
Miller, George E., Hardin to ———.
Oren, S. Leo., Lenark to Iowa.
Parker, Calvin E., Philo to ———.
Pinkerton, Walter J., Ludlow to ———.
Runnels, David S., Milledgeville to Merrill, Wis.
Robertson, L. C., Broadlands to ———.

Smith, John M., Elco to ———.
Staley, Franklin H., Sheffield to South Dakota.
Seagley, Isiah B., Thomasboro to Dakota.
Smith, E. W., Champaign to Colorado.
Suter, Robert E., Champaign to ———.
Shoemaker, R. C., West Union to Indiana.
Trumbauer, J. D. D., De Kalb to Valley Junction, Wis.

Thompson, Theodore, Morrisonville to ———.
Upton, E. J., Ladd to ———.
Weirick, Albert J., Spring Valley to ———.
Wood, John H., Champaign to ———.
Wilson, John R., Darwin to ———.

CHANGES TO ILLINOIS.

Buckmaster, Frank, to Altamont.
Bailey, M. R., to East Peoria.
Barnes, Wm. C., to Mulberry Grove.
Beatty, Eleanor, to Pana.
Chenowith, W. J., Chico, Cal., to Decatur.
Clark, E. S., to La Grange.
Conway, J. S., to Streator.
Dillon, Wm., to Urbana.
Hobson, Edward B., to Gillespie.
House, Ato, to Belleville.
McFarland, George C., Manchester, N. H., to Jacksonville.

McKay, E. L., to Ottawa.
McAuley, Lee, to Golden Eagle.
Pleak, S. Morton, Kirksville, Mo., to Pleak.
Russell, G. W., to Kasbeer.

Thomas, W. A., to Goodhope.
Washington, John N., to Byrnesville.
Winans, E. C., to Lincoln.
Worthington, H. C., to Oak Park.
Wright, John, to Clinton.
Whitmer, C. F., to East St. Louis.
Webb, W. J., to Cairo.
Williams, Joseph S., to Casey.
Williams, Samuel F., to Casey.

CHANGES IN ILLINOIS.

Anderson, James C., Blue Island to Hollowayville.

Anderson, Florence G., Virginia to Antioch.
Beal, Albert R., Watertown to Moline.
Brookings, C. M., Rockford to DuQuoin.
Bokof, C. H., Rock City to Dixon.
Beverly, C. A., Urbana to Champaign.
Coolley, E. B., Newton to Pilot.
Cothern, W. R., Buffalo to Benson.
Caldwell, B. W., Montrose to Watson.
Childs, Charles F., Ivesdale to Argenta.
Conard, A. F., White Heath to Homer.
Davidson, W. T., Fairview to Oneida.
Dorsey, M. E., Amboy to Streator.
Downs, Henry B., Casey to Gilla.
Downs, Maggie Y., Casey to Gilla.
Evans, A. P., Dixon to Syracuse.
Enlow, C. E., Crystal Lake to Quincy.
Early, Henry C., New Douglas to Reno.
Frizelle, C. H., Pontiac to Streator.
Foster, I. A., Emma to Herald.
Giles, Henry W., to Wataga.
Graham, Ralph, to Biggsville.
Gailey, Darwin S., Jacksonville to Ashland.
Garrison, Jessup, Longview to Redmon.
Harris, H. L., Saybrook to Gibson City.
Heeley, O. J., Belleville to St. Libory.
Harrington, Wm. B., Peru to Deer Grove.
Harriman, Samuel S., Yorktown to Fenton.
Linker, Luther M., to Bluff Springs.
Lanoix, F. W., Quincy to Mendon.
Long, J. H., Neponset to Watertown.
Linaberry, Wm., Wyanette to Princeton.
Mangum, H. Y., New Grand Chain to Buncombe.
McKinney, J. G., Quincy to Barry.
Miller, E. J., Ashton to Sycamore.
Montgomery, J. W., Toledo to Birds.
Midgley, R. J., Ritchie to Wilton Center.
McCance, J. B., Thomasboro to Sadorus.
McDonald, James T., Sycamore to Taylorville.
Porter, G. S., Clinton to Lincoln.
Phelps, Wm., Thebes to Diswood.
Pulliam, W. W., Hardin to Elsau.
Rowland, George T., Clark Center to Martinsville.

Smith, Joseph W., Arcola to Bloomington.
Schmidt, Herman, New Mindon to Beaver Creek.
Steele, Henry D., Moline to Princeton.
Smith, G. B., Brussels to Grafton.
Sadler, Perry, Shannon to Waddams Grove.
Smith, B. G., Virginia to Beardstown.
Stedem, F. P., Fisher to Saybrook.
Strohl, Harley, Seymour to Zenobia.
Smith, Jacob W., Martinsville to Marshall.
Wilson, J. M., to Marissa.
Weis, J. W., Coles to Manchester.
Whiteaker, Hall, Olmstead to Cairo.
Waddy, Burt J., Freeport to Belvedere.
Wilson, Oscar, Shabbona to Sheffield.
Walker, Theodore E., Rantoul to Gifford.
Young, Wallace, Marshall to Casey.

CALENDAR OF MEDICAL SOCIETIES.

City.	President.	Secretary.	Time and Place of Meeting.
Alton Medical Society.....	W. A. Haskell, Alton.....	P. W. Beckman, Alton.....	1st Thursday of each month
Chicago Pediatric Society.....	A. C. Coffron, Chicago.....	F. S. Churchill, Chicago.....	Monthly
Chicago Society of Internal Medicine.....	John A. Robison, Chicago.....	Ed. F. Wells, Chicago.....	1st Friday of every month Oct. to June
Chicago Surgical Society.....	John E. Owens, Chicago.....	D. N. Eisendrath, Chicago.....	Quarterly in connection with Chi. Med. Soc.
Chicago Laryngological Society.....	W. E. Casselberry, Chicago.....	John L. Porter, Chicago.....	Monthly, except July and August
Chicago Orthopedic Society.....	Frederic C. Coolidge, Chicago.....	J. G. Kiernan, Chicago.....	2d Friday of each month
Chicago Academy of Medicine.....	W. L. Baum, Chicago.....	S. C. Plummer, Chicago.....	Every Wednesday evening
Chicago Bohemian Medical Society.....	Chas. Stulik, Chicago.....	W. J. Dvorak, Chicago.....	1st Monday of each month
Chicago Medical Society.....	J. H. Stowell, Chicago.....	S. C. Plummer, 4305 Lake St., Chicago.....	2d Friday of each month
Chicago Pathological Society.....	Ludvig Hektoen, Chicago.....	George H. Weaver, Chicago.....	3d Friday of each month
Chicago Gynecological Society.....	Thomas J. Watkins, Chicago.....	Wm. H. Rumpf, Chicago.....	2d Tuesday of each month
Chicago Ophthalmological & Otorologic Soc.....	Lynnan Ware, Chicago.....	C. P. Puckard, Chicago.....	No regular meeting
Chicago Neurological Society.....	Richard Dewey, Chicago.....	Sedney Kuh, Chicago.....	Quarterly
Chicago Medical Examiners.....	Denslow Lewis, Chicago.....	J. H. Stowell, 103 State St., Chicago.....	2d Monday of each month
Demonstrator's Association of Chicago.....	H. A. Hadley, Chicago.....	M. L. Harris, Chicago.....	Elks Hall, last Thursday eve. each month
Decatur Medical Society.....	Herbert C. Jones, Decatur.....	John T. Miller, Decatur.....	Meets monthly from Sept. to June.
East St. Louis Medical Society.....	H. C. Fairbrother, E. St. Louis.....	W. S. Wiatt, E. St. Louis.....	Every two weeks
German Medical Society of Chicago.....	G. Fullerer, Chicago.....	Adolf Decker, Chicago.....	1st Saturday September, March and June
Jacksonville Medical Club.....	C. P. Thompson, Jacksonville.....	D. W. Reid, Jacksonville.....	Monthly
Medico-Legal Society of Chicago.....	N. S. Davis, Jr., Chicago.....	Wm. L. Baum, 103 State St., Chicago.....	1st and 3d Tuesdays of each month, Sept. to June
North Chicago Medical Society.....	Carl Wagner, Chicago.....	J. N. Washington, Chicago.....	Monthly
Ottawa City Medical Society.....	J. C. Hathaway, Ottawa.....	Wm. A. Pike, Ottawa.....	1st and 3d Tuesdays of each month, Sept. to June
Peoria City Medical Society.....	E. M. Sutton, Peoria.....	E. M. Eckard, Peoria.....	Monthly
Physician's Club of Chicago.....	W. H. Wilder, Chicago.....	L. H. Mettler, Chicago.....	2d Thursday of each month.
Quincy Medical and Library Association.....	Joseph Robbins, Quincy.....	Chas. W. Rook, Quincy.....	3d Thursday of each month
Scandinavian Medical Society of Chicago.....	Geo. A. Torrison, Chicago.....	Thos. Warloe, Chicago.....	1st and 3d Tuesday of each month
South Chicago Medical Society.....	Chas. F. Swan, Chicago.....	John S. Davis, Chicago.....	.....
Tri-City (Venice, Granite City and Madison) Medical Society.....	.....	.....	.....
Twin City (Champaign and Urbana) Clinical Association.....	H. C. Howard, Champaign.....	Jos. H. Finch, Champaign.....	2d and 4th Wednesdays of each month
Urbana Society of Physicians and Surgeons	Chas. A. Nichols, Urbana.....	E. S. Smith, Urbana.....	1st Monday of each month
County.	President.	Secretary.	Time and Place of Meeting.
Adams County Medical Society.....	Otis Johnson, Quincy.....	C. D. Center, Quincy.....	Monthly, on 2nd Monday at Quincy
Bureau County Medical Society.....	S. W. Hoppkins, Walnut.....	A. E. Owens, Princeton.....	2nd Thursday of Nov. and May
Bond County Medical Society.....	B. F. Coop, Greenville.....	C. C. Gordon, Greenville.....	Meets in September and April
Carroll County Medical Society.....	J. Haller, Lanark.....	H. S. Metcalf, Mt. Carroll.....	.....
Calhoun County Medical Society.....	P. C. Barry, Hardin.....	T. O. Hardesty, Kampsville.....	Quarterly at Louisville
Clay County Medical Society.....	J. M. Borles, Flora.....	W. F. Burgett, Louisville.....	(Hospital
Champaign County Medical Society.....	T. J. McKinney, Gifford.....	J. C. Dodds, Toloona.....	Thurs. nearest middle of month, Burham
Clinton County Medical Society.....	W. T. Gordon, Carlyle.....	A. Broening, Carlyle.....	May, Aug., Nov., and Feb., at Carlyle
Crawford County Medical Society.....	T. N. Rafferty, Robinson.....	John Welr, West York.....	2d Thurs. in July, Sept., Nov., Jan. & May
DeWitt County Medical Society.....	A. E. Campbell, Clinton.....	E. C. Myers, Clinton.....	2d Thursday in Jan., April, July and Oct.
Douglas County Medical Society.....	Maud E. Nichols, Tuscola.....	W. E. Rive, Tuscola.....	1st Thursday in Feb., May, Aug. and Nov.
Edmon County Medical Society.....	W. E. Shallenberger, Canton.....	D. S. Ray, Cuba.....	.....
Gallatin County Medical Society.....	Alex. H. Colvard, Shawneetown.....	Geo. P. Cassidy, Shawneetown.....	1st Monday in May at Carthage
Hawcock County Medical Society.....	C. L. Ferris, Carthage.....	R. L. Casburn, Carthage.....	.....
Henderson County Medical Society.....	Isaac F. Harter, Stronghurst.....	W. D. Henderson, Bigselle.....	.....
Henry County Medical Society.....	L. A. Terry, Geneseo.....	H. N. Hedlin, Kewanee.....	.....
Jo Daviess County Medical Society.....	H. T. Godfrey, Galena.....	D. G. Smith, Elizabeth.....	.....

CALENDAR OF MEDICAL SOCIETIES—Continued.

County.	President.	Secretary.	Time and Place of Meeting.
Kankakee County Medical Society.....	Geo. H. Lee, Kankakee.....	J. H. Roy, Kankakee.....	1st Thursday of each month
Lake County Medical Society.....	L. M. Bergen, Highland Park.....	A. C. Haven, Lake Forest.....	Annually, 3rd Tuesday in April
Lasalle County Medical Society.....	R. W. Bowet, Seward.....	M. H. Butterfield, Ottawa.....	3d Tues. in April and Oct. at Carlinville
Macoupin County Medical Society.....	J. S. Collins, Carlinville.....	J. P. Matthews, Carlinville.....	1st Tuesday Jan., April, July and Oct.
McDonough County Medical Society.....	D. A. Blair, Abingdon.....	S. C. Stremmel, Macomb.....	1st Thursday of each month at Bloomington
McLean County Medical Society.....	Chas. E. Chapin, Bloomington.....	F. C. Vandervoort, Bloomington.....	1st Tuesday in May, 1901
Montgomery County Medical Society.....	W. W. Douglas, Hillsboro.....	Jos. M. Trigg, Farmersville.....	1st Tuesday of each month at Jacksonville
Morgan County Medical Society.....	J. G. Franken, Chandelville.....	Edward Bowe, Jacksonville.....	1st Tuesday of each month.
Moultrie County Medical Society.....	B. F. McMenamy, Bethany.....	J. W. Mayes, Sullivan.....	Bi-monthly
Pike County Medical Society.....	L. J. Harvey, Grigsbyville.....	R. H. Main, Barry.....	1st Wednesday in January and July
Ogle County Medical Society.....	G. M. McKenney, Oregon.....	H. A. Mix, Oregon.....	2d and 4th Saturday of each month
Physicians' Protective Assn. of Jackson Co.....	W. W. Essick, Murphysboro.....	F. A. Seed, Murphysboro.....	2d week in June and December
Rock River Valley Medical Association.....	A. G. McBride, Sterling.....	A. L. Millet, Dixon.....	Monthly, 2d Friday at Belleville
St. Clair County Medical Society.....	Julius Kohl, Belleville.....	B. Porthondio, Belleville.....	Monthly
Schuyler County Medical Society.....	J. A. Harvey, Rushville.....	C. W. Ball, Rushville.....	Monthly
Saline County Medical Society.....	J. W. Tallman, Harrisburg.....	J. K. Baker, Harrisburg.....	1st Monday in each month.
Sangamon County Medical Society.....	J. N. Dixon, Springfield.....	J. B. B. Griffith, Springfield.....	1st Monday, on 2d Monday at Springfield
Stephenson County Medical Society.....	J. B. Leitzell, Orangeville.....	J. F. Fair, Freeport.....	Annually
Union County Medical Society.....	Wm. J. Eddy, Shelbyville.....	A. G. Mizell, Shelbyville.....	Monthly
Vermillion County Medical Society.....	D. B. Sanders, Jonesboro.....	T. Lee Agnew, Anna.....	2d Friday evening at Danville
Will County Medical Society.....	E. B. Cooley, Pilot.....	E. E. Clark, Danville.....	2d Tuesday of each month
Wabash County Medical Society.....	G. M. Peairs, Joliet.....	E. E. Larned, Joliet.....	Quarterly
Winnebago County Medical Society.....	Norman Leeds, Belmont.....	J. B. Maxwell, Mt. Carmel.....	2d Tuesday each month
Warren County Medical Society.....	T. N. Miller, Rockford.....	J. H. Frost, Rockford.....	Semi-Annually
White County Medical Society.....	Cynthia A. Skinner, Monmouth.....	Adella Nichol, Monmouth.....	2d Thursday in Jan., April, July and Oct.
Williamson County Medical Society.....	W. W. Apple, Carmi.....	W. A. Steele, Carmi.....	1st Monday of Jan., April, July and Oct.
Woodford County Medical Association.....	W. H. Bentley, Marion.....	G. W. Evans, Marion.....	1st Tuesday in May
	C. E. Davis, Peoria.....	Frank Stubbiefield, El Paso.....	
District.	President.	Secretary.	Time and Place of Meeting.
Aesculapian Society of the Wabash Valley.....	Z. T. Baum, Paris.....	H. McKennan, Paris.....	Meets May 16, 1901, at Mattoon
Association Military Surgeons of Illinois.....	Col. Nicholas Senn, Chicago.....	I. C. Col. Chas. Adams, Chicago.....	Annually, Chicago or Springfield
Brainerd District Medical Society.....	J. L. Lowrie, Lincoln.....	Katherine Miller, Lincoln.....	4th Thursday of Jan., April, July and Oct.
District Medical Society of Central Illinois.....	J. N. Neils, Taylorville.....	C. R. Spicer, Taylorville.....	Last Tuesday in April and October
Fox River Valley Medical Association.....	Catherine B. Slater, Aurora.....	H. T. Gahagan, Elgin.....	At Elgin in May and at Aurora in Nov.
Galva District Medical Society.....	W. A. Grove, Galva.....	C. W. Hall, Kewanee.....	Annually, 1st Tuesday in May at Galva
Iowa & Illinois Cent. District Medical Assn.....	C. C. Carter, Rock Island.....	G. E. Decker, Davenport, Ia.....	Quarterly
Medical & Surgical Society of Western Ill.....	H. W. Smith, Roodhouse.....	H. A. Chapin, Whitehall.....	At Kewanee
Military Tract Medical Association.....	E. J. Sutton, Canton.....	C. B. Horrell, Galesburg.....	Annually, 1st Tuesday in December
North Central Illinois Medical Association.....	F. C. Robinson, Wyanet.....	G. O. A. Dicus, Sycamore.....	Murphysboro Nov. 8 and 9, 1900.....
Southern Illinois Medical Association.....	W. F. Grinstead, Cairo.....	O. B. Ormsby, Murphysboro.....	1st Tuesday in June and December
Tri-County Medical Society.....	E. S. Evans, Watseka.....	Leroy Jones, Hoopesston.....	

ILLINOIS Medical Journal

The Official Organ
of the
State Medical Society



A Monthly Bulletin
Edited by the
Publication Committee

Printed by

THE ILLINOIS STATE JOURNAL COMPANY.

Entered in the Springfield Postoffice as Second-Class Matter.

Volume L.
New Series, Vol. II. }
Number 12.

Springfield, Ill., May, 1901.

{ Subscription, \$3 a Year.
Single Copies, 25 Cents.

SEVENTY TWO PAGES AND COVER. TWELVE HUNDRED
AND FIFTY COPIES OF THIS EDITION.

TABLE OF CONTENTS.

ORIGINAL ARTICLES.

The State Care of Consumptives—John A. Robison, M. D., Chicago.....	539
Sanitarium Treatment of Pulmonary Tuberculosis in Illinois—Florence W. Hunt, M. D., Chicago.....	543
Observations as to the efficiency of the Chicago Health Department Method of Fumigation—Adolph Gehrman, M. D., Chicago	549
Cholelithiasis—J. W. Hairgrove, M. D., Jacksonville.....	555
A Gynecologic Examination—C. C. Hunt, M. D., Dixon.....	559
The Colonial Treatment of Epilepsy—Daniel R. Brower, M. D., Chicago.....	562
Diagnostic Sign in Small Pox—J. C. Sullivan, M. D., Cairo.....	565
Obstructions in the Pathway of Legitimate Medicine—J. H. Miller, M. D., Pana.....	566
Surgical Introspection—H. W. Chapman, M. D., Whitehall.....	567

EDITORIALS.

Judicial Council.....	538-571
Meeting Notes.....	571
Vermilion County Society..	571
Membership of the Society.....	571
State Board of Health.....	571

A Notable Victory.....	571
The Peoria Meeting.....	572
Call for Preliminary Meeting.....	572

CORRESPONDENCE.

Corruscations—A. C. Corr, M. D., East St. Louis.....	573
Small Pox and the Law—C. E. Black, M. D., and Hon. L. C. Collins.....	574

COUNTY AND DISTRICT SOCIETIES.

Champaign County Medical Society.....	576
Chicago Pathological Society.....	578
Chicago Neurological Society.....	581
DeWitt County Medical Society.....	577
Livingston County Medical Society.....	576
McLean County Medical Society.....	577
Macoupin County Medical Society.....	577
Pike County Medical Society.....	576
Sangamon County Medical Society.....	579
Vermilion County Medical Society.....	577

Program and Abstract of Papers for Peoria Meeting.....	584-592
List of Contributors to Legislative Fund...	593
Membership of Illinois State Medical Society.....	593-601
Marriages, Deaths, Changes of Address.....	601-602
Calendar of Medical Societies.....	603-604

CONCILIIUM JUDICIALE SOCIETATIS, 1900-1901.



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THE STATE CARE OF CONSUMPTIVES.*

BY JOHN A. ROBISON, A. M., M. D., CHICAGO.

The prevention of disease is one of the most important paternal duties of the state. When this duty is faithfully performed, the reward is incalculable, for healthy citizens mean a prosperous commonwealth.

Recognizing the value of this branch of paternal state government nearly all the states have made provisions for caring for the health of communities by the organization of local or state health departments, or boards of health. And it is the province of these boards of health to prevent the spread of contagious, or when possible stamp out infectious, disease. Therefore, wise laws have been passed and the means provided for enforcing them, for the prevention of smallpox, diphtheria, typhoid fever, cholera and so forth. Yet strange to say, the state has taken almost no steps toward preventing the disease which claims more victims annually than all the other infectious and contagious diseases. Nor does it provide for the intelligent care its suffering wards demand.

Provision has been made for the care of the insane, the feeble minded, the blind, and it is proposed to establish a colony for the epileptic. But nothing has been done, practically, for the consumptives, by the state. And the medical profession is greatly to blame for this condition of affairs. The profession is more interested in having laws passed to regulate medicine which do not "regulate," or forcing the colleges to raise the standard of education before public sentiment demands it, than in combining to fight the most widespread disease in our commonwealth. As an illustration of the apathy of the profession to this ques-

tion, I will state that desiring some statistics on tuberculosis which could only be obtained by direct appeal to the profession. I sent 2,000 circular letters to members of the Illinois State Medical Society, and others, and receive only nine replies. This in face of the fact that there are over 5,000 deaths annually from consumption in Illinois.

I claim it is the duty of the profession to bring to bear upon our legislators and state officers such influence as will enthuse them with a desire to institute such measures as experience has proven to be efficacious in the prevention and cure of consumption.

These measures should be directed to two objects: The prevention of the disease, and second the cure of the disease, or the alleviation of its victim and their families.

PREVENTION.

The institution of preventive measures would benefit suffering humanity, and be a greater benefit to the community. It is estimated that there are in Illinois about 1,500,000 persons engaged in gainful occupations, and of this number one in each two hundred and fifty dies of consumption. A conservative estimate of the number of consumptives among the wage-earners of Illinois would place the number at 300,000. Think of the loss of productive capacity to the state of this army of invalidated wage-earners, of the expense of caring for them, of the suffering it brings to families, the disruption of homes, the loss of social position, the pauperizing of orphaned children, yea, even more, the bringing up of many of these children in the ranks of the criminal class, and the interminable complications which mean expense to the state. Diphtheria takes away children under the age of fifteen, so that the loss of labor-capital is much less. But the ranks of producers of wealth, is reduced by the chronic sufferers from tuber-

*Read at the Fiftieth Annual Meeting of the Illinois State Medical Society, Springfield, May 16, 1900.

culosis and decimated finally by death. The loss to the state financially is greater than by war and strikes.

The problem of prevention has already been taken up by various voluntary societies, but the state should take an interest in this problem if for no other than economical reasons. And it is only when the state, which has the power to enforce preventive measures, takes hold of this work that we may hope for success.

The state should, through local, municipal or state boards of health exercise strict supervision over all public institutions, such as schools, asylums, courts, post-offices, libraries, public halls, theatres, restaurants, hotels, factories, large and small, public vehicles, waiting rooms, elevated station approaches, churches, cloisters, and all places where people congregate and are confined in relatively small spaces. Sanitary measures for the prevention of the spread of infection by destruction of the sputum should be provided. Spittoons of proper style should be provided and the public required to use them. A large percentage of people would probably refuse at first to do so, but in time the public would be educated to every one adopting precautionary measures against the spread of the infection.

Houses which contained tubercular patients should be disinfected, and if the sanitary conditions were very bad they should be condemned and destroyed. Dr. Flick of Philadelphia and Dr. Knopf of New York have graphically shown that certain houses and tenements were hot beds for the propagation of consumption.

The educational work which has already been undertaken by voluntary societies, and certain boards of health, should be undertaken by the state, and circulars issued and distributed, lectures should be given to the masses, the school children should be taught and encouraged to write essays on the prevention of the disease, etc. The public should be taught that a clean tubercular patient is not a source of danger to those about him, and that by observing the well known sanitary precautions many tubercular patients are curable.

2. Our boards of health should have the necessary police power to regulate all places where men and women work, or transact business. Cornet has found factories where over fifty men would be employed, and no precautions such as providing sanitary spittoons, would be found and the dust of these factories would be laden with bacilli. The state should see that all buildings are properly constructed, well ventilated, lighted, and the dust purified. Factories, offices, schools, etc., should be cleaned out, not swept, in the evening after they are vacated, and living and sleeping rooms should be cleansed in the morning.

Each county should have health ordinances to suit its own needs. The counties in which large cities are located will need more stringent laws than the counties which are more sparsely inhabited. But all counties should have a system of rigid sanitary inspection, as the increased cost of inspection would be more than saved in the end to the commonwealth. Resorts should be rigidly inspected, not only health resorts, but pleasure and especially summer resorts.

3. Instead of the citizens decrying the ordinances directed against promiscuous expectoration, they should see that such offenders are punished, just as promptly as they would persons offending common decency.

4. As the disease may be contracted by persons partaking of contaminating food, the food supply should be under the inspection of the state. Already a movement of almost national extent has commenced to secure a pure milk and meat supply. Strange to say, this movement interests the veterinarians more than the physicians, but it is only another example of the part which politics plays in the game. The veterinarians have been agitating this subject until it has attracted attention, and the physicians must agitate, for sanitation must follow public agitation.

5. All clothing worn by consumptives or apartments occupied by them should be disinfected. Second-hand clothing stores, and pawn shops, where the effects of deceased consumptives are apt to drift, should

be under the inspection of the health boards.

6. The tuberculous in hospitals and dispensaries should be separated from the other patients, and the rooms used for consumptive patients should be frequently scrubbed and disinfected. More than one attending dispensary physician has succumbed to tuberculosis, undoubtedly infected in illy-kept dispensary rooms.

7. All sputa of poor patients should be examined free of charge to enable an early diagnosis and the application of the proper prophylactic and curative treatment.

8. The eight hour rule of the labor unions is a good one when enforced on persons engaged in indoor occupation, or in occupations where the air becomes vitiated or the chest contracted. Children and women should be protected from long working hours by law, and one of the good results that may accrue from our recent strikes is the removal of factories from the crowded, filthy, smoky city, to the country where both the homes and the factories will improve by reason of being located in purer air. Unfortunately, however, the clerks, bookkeepers, seamstresses, stenographers, and others who do not command the wages of artisans, and have to spend their money more freely in order to keep up the personal appearance their positions demand, cannot shorten their hours, or improve their sanitary surroundings. The state, therefore, should aim to alleviate their condition by imposing on their employers such regulations as will tend to improve the physical well-being of their employees.

The foregoing regulations are for the benefit of the uninfected, or those but slightly infected, but what are we going to demand for those who are afflicted with the disease? It is a question of vital importance, and one difficult to answer. We have no statistics to show, the cost to our state of the care of our consumptives, but we may obtain some idea of the cost, by glancing at the statistics as to the cost of taking care of the consumptives in New York. Dr. Knopf, of New York, in his book says: "Thus, 2,000 tuberculosis pa-

tients treated in the general hospitals in the city of New York, with very little chance of being cured, but with much chance of doing harm to their fellow-patients suffering from acute diseases, cost the city \$1,044,000. Treated in sanatoria, or special hospitals, with twenty to fifty per cent chances of recovery, according to the stage of their disease, and even if we should allow them just as long a stay in the special institution as we grant to the advanced cases in general hospitals, the cost would be only \$890,000. Thus, with a saving of at least \$150,000, and the saving of hundreds of lives, countless centers of infection would be extinguished which otherwise would endanger the families and neighbors of these tuberculous invalids.

"Besides all this one must think of the gain to the commonwealth by restoring to health the many breadwinners whose families, under the present conditions, might become a burden to the commonwealth."

Calculating on the same basis, the 5,000 tuberculous patients treated who died in Illinois in one year, cost our state or its citizens, \$2,610,000, and the state if it had provisions for their care in proper sanatoria or special hospitals would have saved \$375,000. This saving in one year would repay to the commonwealth every dollar expended for the erection, equipment and maintenance of institutions for the care of the consumptives.

As an economical proposition, therefore, I assert it is the duty of the state to establish and maintain an institution or institutions, for the care of its consumptives. Provision should be made for two classes of patients; those unable to pay, and those able to pay moderately, the latter class being entered in the same manner as those not paupers who are admitted to our insane asylums.

The pioneer institution of this kind is the Massachusetts State Hospital for Consumptives, opened, Oct. 1, 1898. This hospital has pavilions for both sexes, accommodating 200 patients. The buildings, are so arranged as to give sunlight to each room. This institution is intended only for those who are not hopelessly ill, and

it is intended to restore to the wage-earning class as many as possible of those who are afflicted with consumption in the earlier stages.

The charges for the care of the patients are uniform, fifty cents per day, and no provision is made for private patients.

Since this institution has been in operation the demand for beds has outgrown the supply. Within a few months after it opened, it was filled, and has been filled since. The history of this institution refutes the statement advanced by objectors that citizens would not go to a state institution, and it encourages other states to establish similar institutions.

In this state a movement has been commenced for the establishment of a state sanatorium for consumptives. Doubtless Dr. Hunt in her paper would inform us as to the progress made and the prospects of success. My plea is that members of the Illinois State Medical Society shall assist the State Board of Health in every possible manner in making certain that such an institution shall be established, as I feel a certain sense of responsibility in the project as being the originator of the movement although I have had no part in its accomplishment, other than endorsing it by word and pen. But when we perceive the necessity for providing for the consumptives, we will doubtless all assist in the provision. It has been objected that it would be impossible to provide for the segregation of the consumptives in a state having a city so large as Chicago. But this argument does not seem to me to be wise, as the percentage of cases who would be placed in such institutions would be small compared with the entire number of cases of the disease in the entire state, and there is no doubt but the state would be able to care for all who would seek an entrance.

The argument that quarantine, notification and the segregation of other contagious diseases, as in the case of leprosy in Hawaii has been a failure, and that such an attempt to stamp out human tuberculosis would also be a failure, is simply a statement incapable of proof. But it is

doubtless true that attempts to make tuberculosis a quarantinable and notifiable disease would be unwise. Do not attempt to interfere with the personal liberty of such patients, as the disease is not violently contagious, as smallpox, but educate the public and as certain as sunlight precedes the sun the public sentiment will force all persons to voluntarily use every endeavor to control the spread of the disease.

The act which confers power on the State Board of Health says it shall have the general supervision of the interests of the health and life of the citizens of the state, and shall have charge of all matters pertaining to quarantine and shall have authority to make such rules and regulations, and such sanitary investigations as they may from time to time deem necessary for the preservation or improvement of the public health, etc. The Board has the necessary police power to carry out its duties, and it lies only with the state to provide by appropriation the necessary funds.

We know that sanitary legislation is generally based on antecedent education, or is the result of great emergencies. It lies therefore with us to re-educate the public, so that public opinion will favor rather than oppose the needed legislation. The crusade against tuberculosis has been given a great impetus by popular discussion during the last two years, and if we physicians will guide this interest it will doubtless lead to much good.

Let us therefore keep before the public these maxims: tuberculosis is a preventable disease, its eradication among cattle and man is possible, and the curable cases are best treated in special institutions, and that it is the duty of the state to provide such institutions.

Such an institution should be equipped to carry on scientific investigations as to the aetiology and bacteriology of the disease, as it exists in the human and the domestic animals.

And the object of this paper is to arouse discussion so that the profession may place itself on record for or against providing the means for the prevention and cure of

tuberculosis. I have purposely presented these points briefly in order that there may be more time for discussion.

SANITARIUM TREATMENT OF PULMONARY TUBERCULO- SIS IN ILLINOIS.*

BY FLORENCE W. HUNT M. D., CHICAGO.

Mr. President and Members of the State Medical Society:

A joint resolution was passed by the senate and the house of representatives of the Forty-first general assembly directing the Illinois State Board of Health to investigate the advisability of establishing a state sanitarium for consumptives in Illinois and to report thereupon to Governor Tanner before Jan 1, 1900. Much of the data for this paper has been taken from that report which, as chairman of the committee appointed by the Board, I prepared.

I think that it is eminently proper that it should be presented here as the State Board of Health always wishes the co-operation of the State Medical Societies in any measure they desire to promote.

The great Pasteur has said, "It is within the power of man to cause all parasitic disease to disappear from the earth." These words have been placed above the introduction of a late important work on Pulmonary Tuberculosis and we quote them again because they are in spirit prophetic and because the argument which we present will favor one of the most important factors in the crusade which they inspire. For this paper will briefly present conclusions gathered from the general facts now known regarding tuberculosis, the disease which is the most widely disseminated and the most fatal of any existing in our civilization and which is now known to be preventable and curable. These facts have been revealed with remarkable fertility since the impetus was given by the discovery of the causative factor of tuberculosis by Robert Koch in 1882.

The State recognizes its responsibility

by advancing the welfare and protecting the lives of its citizens. It generously and wisely establishes institutions where those, who, because of defect of infirmity cannot maintain an equal struggle for existence with their fellowmen, find not only a home and shelter where their material wants are abundantly provided for, but also furnishes these institutions with complete equipment for the cure and correction of these defects and infirmities so that if possible, the unfortunate man, woman or child may finally be restored to his home and community and become self-supporting. The asylums for the blind and for the deaf and dumb are examples. The state also recognizes a responsibility of a more urgent nature. It establishes and maintains institutions where those whose presence in the community is a menace to the lives and welfare of others can be segregated and also be surrounded by the most humane and scientific agencies for the removal of their disability for it is a disability whether it be diseased brain or abnormal and criminal tendencies. In this last class would fall the criminal, some of the insane, some of the epileptic and some of the feeble-minded.

The poor sufferer from pulmonary tuberculosis could demand state protection in a two-fold sense and would fall into both of the above named classes—not only do they become unfitted to maintain themselves and those dependent upon them, but their presence in the government may be a fatal menace to the lives of those about them. The state has not yet provided for the individual who, for years disseminates it may be unconsciously and involuntarily a poison which is insidious and fatal and whose victims may equal or exceed any of the delinquent above named. The day is coming when the consumptive will be shunned in the community, because of the danger that his presence may bring; the time is coming when no one will employ him; when no one will receive him as a guest. Even now as you know many hospitals have closed their doors to him not only because they have not the special equipment for the treatment of this disease

*Read by title before the Illinois State Medical Society Springfield, May, 1900.

and he becomes an incumbrance, but because his presence renders the other patients liable to infection. If he is poor he has not the means of securing the necessary treatment and he is neglected until he finally reaches the poor-house and spreads infection among the poor unfortunate inmates who have nowhere else to go that they might flee from him. But not only are those with whom the consumptive lives and works menaced, but in considering his influence in the social sphere the question of race degeneracy meets us. By the consumptive the race is menaced because though it is known that tuberculosis is not directly transmitted the offspring of the consumptive comes into the world disabled, he is endowed with the tubercular diathesis—a predisposition to tuberculosis. The children of consumptives are designated by the eminent French clinician, Laudousy, as consumptives in expectancy. This knowledge is rapidly becoming the property of the people. The French novelist, Zola, who is zealous in expounding scientific theories, says in his remarkable study on heredity, "Le Docteur Paeal:" "The child of the consumptive brings into the world a degenerate soil.

It is impoverished by its inheritance and this soil must be enriched that it may resist the invasion of parasites." Tuberculosis in the parent is frequently not only a powerful, causative factor in the physical, but also in the intellectual degeneration of their offspring. To the offspring of the consumptive may be transmitted not only the tendency to tuberculosis, but he is more vulnerable to all disease especially to diseases of the nervous system with their unfortunate collateral disabilities. Emile Laurent who has made an exhaustive study of the criminals in French prisons, says, "a consumptive parent may be a predisposing cause of criminality;" children of consumptives are numerous in prisons; we see prisons largely peopled with these degenerates. We quote this without comment but would it not be well for us as physicians to investigate this side of the question and to consider if tubercular population may not be an etiological factor in what Dr. Brower

has eloquently called the great pollution of our race. Every influence even the slightest bearing on the ominous increase of crime should receive the thorough consideration of those who hold the welfare of the people of a state in their keeping.

One of the saddest phases of this disease is its effect upon the young mother. The mother of the nation should be guarded by the state and it is true that while performing the sacred function of nourishing her child she is especially susceptible and very frequently becomes a victim of this infection.

To the state one of the most important bearings of this question is the economic feature. If we had space we could quote from the speeches of many eminent statesmen who have declared that from an economic point of view, in no department of the state are strenuous efforts more important than in the domain of public health. One of the greatest factors contributing to the wealth and power of a state is the productive capacity of its citizens and that this capacity is greatly disabled by the prevalence of tuberculosis is apparent from the startling rate of its mortality. It also appears most frequently between the ages of 16 and 60 years, the period of the productive power of the individual and though no class is exempt, it forces its ravages among the laboring class, the class that has been designated by a great Englishman as the "back bone of the nation." The financial value of an individual has been placed in this state at 5,000 and when we consider the mortality it is evident that the loss to the state will reach millions every year. It is also frequently not only the loss of the productive power of one individual to the state, but when that individual is the bread earner, the children may be reduced to privation in their years of development and because of this, never reach their full productive power and they become more or less unfitted to sustain their later struggle. You are familiar with the mortality from pulmonary tuberculosis, that has been estimated that one-sixth of the population of the civilized world is afflicted with tuberculosis, and to it are due one-seventh

of all the deaths and one-fourth of the deaths among the adult population. We regret that we cannot present the absolute mortality of Illinois, as physicians do not return reliable statistics, but Pope's register states that in 1890, Illinois registered 5,698 deaths from consumption. This probably falls below the average; many patients suffering from consumption die of intercurrent disease and are so registered, when consumption may have been the determining cause of death. During three years, from 1886 to 1889, all unclaimed patients dying at the Cook County Hospital for the Insane, and many at the Cook County Infirmary, were examined by autopsy. Every case that had been in the institution more than one year, presented the lesions of advanced pulmonary tuberculosis, but it was rarely the immediate cause of the death, and was not entered on the records as such, though there is no doubt that it was a determining cause. It has been estimated that Illinois ranks fifth among the states in mortality from this disease, but there is no doubt that if statistics were accurate it would rank at least fourth. It is not necessary to make the statement that tuberculosis is an infectious disease. Five centuries before Christ, one of the first great physicians taught that consumption was infectious, that is, that it could be transmitted from one person to another, and isolated clinical investigators have advanced this belief through the centuries. In 1865, it was demonstrated that tuberculosis could be produced in the lower animals if they were inoculated with matter taken from the lesions in the lungs of consumptives. But knowledge regarding this disease did not assume definite form until after the discovery of the tubercle bacillus in 1882. Investigation following this discovery has established the fact that tuberculosis is communicated from one person to another beyond a doubt.

The avenues of invasion and the media are familiar to you all. You also know that it is estimated that a consumptive may expectorate from thirty to forty millions of the bacilli in one day.

In one series of experiments Dr. George

F. Buttal, whose work is conducted with the highest degree of accuracy, examined all the sputum of three cases that was expectorated in twenty-four hours. He found in the sputum of each respectively, 2,000,000,000; 20,000,000 and 165,000,000 bacilli.

Facts of this character becoming public have caused a prejudice against consumptives that has assumed the proportions of a phobia, but this prejudice should be modified, as the ubiquity claimed for the bacillus is not well founded. While the danger may appear alarming, it is, in reality, easily corrected and controlled.

Though it has been demonstrated that the bacilli may retain their virulence in a dried state, as a rule they lose their vitality in the dried state in from six to ten months. When exposed to the rays of the sun, they are quickly destroyed and under the influence of putrefaction they lose their vitality in about one and a half months, and they are still more precocious in losing their virulence. Neither do they fructify outside of the organism, as do the cholera spirilla, for instance.

The risk of contagion is also lessened by the limited receptivity of the human being. Infection is only realized when absorption is repeated and abundant; that is, practically only when the individual lives and works in intimate proximity to the consumptive. Thus it propagates itself by preference among families living in confined and poorly ventilated quarters. Also, as consumption is a chronic disease and insidious and mild and difficult to diagnose, in its first manifestations, the consumptive pursues his vocation for some time, and is not confined to his home as he would be if suffering from more virulent communicable disease, and thus the long duration and character of his illness permits one consumptive to infect a considerable number of individuals.

But the most important factor to consider in this connection and the crusade against pulmonary tuberculosis is the fact that the tubercle bacillus is powerless unless the individual presents a soil favorable for its activity. In a normal condition the

body is endowed with an immunity against infection, and the individual yields to disease only when its natural defenses are disabled.

We find consumption more frequent in industrial centers than in agricultural districts. In our state these industrial centers are increasing in number; the social conditions are becoming more complex, the struggle for a livelihood is becoming more difficult; sometimes an individual must make a strenuous effort for bare existence, and the poor laborer is forced into an unsanitary environment; there is a decline in resistance to disease and the protective forces of the system yield and are disabled. The resistance is lowered in all classes, but the laborer, because of his environment is most affected. It is largely because of the development of these unsanitary conditions that the morbidity and mortality of consumption is increasing in our state and it will continue to increase until means are put in operation to check its progress. The individual assailed by the infection must be placed in an environment where the normal resistance of the body and the integrity of its protective forces can be restored, and it is upon the adoption of this principle, that the modern cure of consumption by the sanatorium is based. Let us briefly consider the modern treatment of consumption, or the function of the sanatorium.

For centuries consumption was regarded as an incurable disease. During the present decade many physicians and surgeons have exploited different cures, but no treatment except upon which the principle of the sanatorium is based has been successful. After experiencing defeat in medical treatment, the clinicians have abandoned the search for a specific and have applied their energy in utilizing and stimulating the resources of nature and have sought and found there the means to favor the natural evolution of the malady towards recovery. It has been found that nature not only provides defenses against infection, but after the individual has yielded to it, she exerts a reparative influence which tends to realize regeneration and re-

covery. Lung tissue damaged by disease is not replaced, but is converted by nature into a calcified nodule or a harmless cavity, or more frequently into more or less extended circatricial tissue. Limited destruction of lung tissue of this character does not disable the individual, but to effect nature's repair the individual must be placed in an environment where the nutritive activities of the tissue cells will be favored in the highest degree, and will exercise a favorable influence both on the receptivity and the resistance of the individual, and also on the duration and the gravity of the disease. The realization of these principles have all been embodied in the conception of the sanatorium while it is now the established modern and most approved treatment for pulmonary tuberculosis known to medical science.

Sanatoria are institutions designed for the open air treatment of consumptives under medical direction, embodying ideal hygienic and educational measures, namely:

First, the isolation of the patient, the disinfection of the clothing, the destruction of sputum, removing him from danger of infecting others or of re-infecting himself. Under the constant supervision of a medical officer there is a strict regulation of his daily life, and such measures are enforced as may be indicated by the needs of each patient. There is a systematic regulation of rest and exercise according to the varying condition of the patient, a carefully chosen dietary, and life in the fresh, pure air, promoting oxygenation of the tissues, and remedies are administered for particular symptoms as they arise. To quote a prominent clinician: "a patient outside the sanatorium is disinclined to accept the yoke of a rigid and severe discipline. In the sanatorium nothing is left to his caprice, he never receives recommendations more or less vague, but rest, exercise and alimentation are measured and even the cough is disciplined. This almost military education creates an influence very favorable to the evolution of recovery and assures success of therapeutic means; and the patients rapidly acquire habits of hy-

gienic discipline and become an educational influence in hygienic principles when they return to their homes."

It was the unanimous concession of the eminent investigators who assisted at the Berlin Congress of last year, that all means preventitive and curative of combating consumption were combined in the sanatorium.

THE SANATORIUM MOVEMENT.

The history of the sanatorium movement would fill a large volume. It has been more actively and energetically advanced during the past ten years than any other agency in the medical world. For want of space we will present only a brief summary of the movement. France claims to have been the first to have sounded the warning, and also to have declared that consumption could be cured. France was probably the first to institute the modern sanatorium treatment for the consumptive poor when she established the Marine cottages for the poor children of Paris, in 1861, and she has the satisfaction of announcing the recovery of from 75 to 80 per cent of cases. But for perfection of detail the conception of Dr. Hermann Bochner has produced the ideal modern sanatorium for tubercular patients. His first sanatorium for consumptives was opened in 1859, but the first sanatorium for the consumptive poor was not built in Germany until 1892. At the present time, however, hardly a month passes that some German city does not form a project for establishing a sanatorium for its consumptive poor.

Great Britain was a pioneer in the establishment of special hospitals for consumptives, and established the first chest hospital in London in 1814. She has since provided generously for consumptives, especially of the poorer classes, though they have only one institution where the modern open air treatment is carried out to perfection, and that is at Craigleith, Scotland. The method in a modified form is used at the well known institution at Ventnor, in the Isle of Wight. Though the methods pursued in Great Britain have

been crude, the death rate for consumptives has been reduced 50 per cent.

At the present day we find our greatest object lessons in public institutions in the Empire of Russia, and now in the pine forests of Sparrow Hill, the height from which the great Napoleon first looked down upon Moscow, they are building the sanatorium that will hold supremacy in the world. It will be the most extensive and complete institution in equipment of any yet conceived. Five physicians have been sent at the expense of the government to the universities and sanatoria of Europe to make thorough and extended study of this movement, and upon their return, they will be placed in charge of the institution.

The United States was one of the first countries to build a sanatorium for the consumptive poor, and the state of Massachusetts in this, as well as in many other measures of sanitary reform, holds supremacy over the other states. Every country in Europe is establishing sanatoria for consumptives, and the conception of Brehmer has been accepted as the ideal model by all countries. These institutions do not claim to give precise statistics regarding recovery, but experience has yielded unanimously successful results. Though for centuries consumption was considered as incurable, it may now be announced with assurance that if it is taken in the early stages and treated by the purely hygienic measures embodied in the sanatorium idea, it is one of the most curable of diseases; and that while there may be objections to the sanatorium plan for all patients it promises to be the most efficient, economical and indispensable remedy for sufferers from consumption among the dependent population.

There are objections that will be raised against locating a sanatorium in Illinois. As far back as can be remembered consumptives have sought localities where they could have the benefit of a mild sunny climate, possessing either a high altitude or marine atmosphere. The cure of consumption by climate has become traditional, but experience in sanatorium work

has proven that the value of any special climate or altitude or atmosphere has been exaggerated. Weber, who can speak with higher authority on this subject than any other writer, says: "The blind confidence that has existed in climatic influence, has caused neglect of other necessary hygienic measures and has frequently caused an aggravation of the disease." It is now conceded that there is no climate possessing immunity from consumption. Climatic conditions are far from exercising the salutary influence attributed to them, and excepting in the extreme zones of the earth, the cure can be effected wherever the air is pure without extreme changes of temperature. No atmospheric conditions excepting high winds have an unfavorable influence upon consumptives. Consumption extends its ravages in densely populated regions and errors regarding altitude have arisen from the fact that altitudes are more sparsely populated. Statistics carefully kept have shown that in high altitudes, as in upper Bavaria, and the Black Forest, the death rate has been higher than in any low-lying district. Indeed, cases with neurotic complications are frequently aggravated by altitudes and marine atmospheres. Careful investigation and observation have demonstrated the fact that permanent cure can be promoted more effectually in the home climate where the patient must spend his life and make his living. You have heard the question frequently raised, "will not the aggregation of consumptives be the means of disseminating the disease in that community?" You know, on the contrary, it has been found that a sanatorium is an object lesson in a community and promotes its education in hygienic principles and a consequent lowering of the mortality and morbidity of consumption. It may also be claimed that an additional expense may be imposed upon the taxpayers for the maintenance of a new state institution. This objection would have no real foundation because a large number of consumptives are now supported in our public institutions by the people and as these institutions lack the special equipment for their treatment they remain a

public charge upon the community until death, whereas in a sanatorium they would be placed in an environment favoring recovery and chances of being restored to take part as a factor in the industrial interests of the state would be advanced. To establish a sanatorium for consumptives would be in our state a re-adjustment of existing institutional conditions on a more economical basis and by removing the consumptives now uselessly incumbering our institutions these institutions will be rendered more efficient in the special aim for which they are designed.

LOCATION AND CONSTRUCTION.

We will not attempt to outline the details of location or construction or equipment of the sanatorium, but we would advise that these matters be left to a committee which shall be appointed by the state authorities and which shall include a physician having special personal knowledge of sanatorium work; the other members shall be familiar with the work of state institutions. This committee should give careful consideration to the three important features—location, construction and equipment, and should prepare and submit a special report upon them. We should advise that before making this report this committee should visit and carefully inspect the sanatoria of the state of Massachusetts and New York. This is earnestly advised, because the only failures in sanatorium work of which we have knowledge have been due to faulty construction and equipment and the sanatoria of these states have been constructed and equipped in accordance with the most advanced knowledge.

It is advisable that life at the sanatorium should be reduced to simple, natural conditions. This would be best accomplished by a colony consisting of a large farm, with cottage buildings containing spacious, airy living and sleeping rooms. Large dormitory buildings are wrong in principle and not advisable.

The physicians of the state should demand that the institution have a laboratory for study and investigation of this infec-

tion and a skillful pathologist should be placed in charge of it. Re-search in pulmonary tuberculosis is yet in its infancy. Especially do we need re-search for reliable means of diagnosing the disease in its earliest insidious stages.

To recapitulate:

1. It is an established fact, capable of demonstration, that consumption is an infectious disease.

2. A high mortality exists in this state, and owing to the development of complex social conditions, this mortality is increasing.

3. The state annually loses a large value in the productive power of its citizens from this cause.

4. It has been demonstrated that consumption in the early stages can be cured.

5. There is no element in our climate that would seriously operate against the efficiency of a sanatorium.

6. The apprehended burden to the taxpayer is more apparent than real.

7. The treatment of consumption by the sanatorium rests upon a well-established scientific basis, which had its incipency in the discovery of the bacillus of Koch, and that it is the most important agent in promoting the prevention, the cure and the final elimination of the most fatal disease existing in our community.

8. That the state would not only be acting for the sake of charity and humanity, but also in the interests of economy, by extending its protective function over the consumptive poor and those whom they menace, and this could be most efficiently accomplished by establishing a special institution for the treatment of this disease in its earlier stages.

DISCUSSION ON THE PAPERS OF DRs. ROBISON AND HUNT.

DR. E. J. BROWN, Decatur: This is an important subject, and one which we have to meet every day. The State of Illinois, as well as other states, takes care of the deaf and dumb, the insane, the blind; they legislate to prevent hog cholera and chinch-bugs, but consumptives they allow to go uncared for. It is a curious state of affairs. Our legislators will make appropriations for stamping out hog cholera when it jeopardizes the lives of families, they care nothing for that. I recall a farmer who lost his wife and seven grown children from consumption within a

period of five years. The contagion was a much greater factor than heredity in these cases. I highly favor the control of consumptives by the state.

DR. CHARLES DEWEY CENTER, Quincy: I heartily approved of Dr. Robison's paper, and particularly the last clause of it. In order to make the state care for consumptives, it is necessary to educate the people, and the whole argument lies in that sentence. State institutions and state supervision are distasteful to the majority of physicians. There are several ways by which the people can be educated on this subject. They can be educated by the free circulation of printed matter, by what we ordinarily term didactic teaching. They can also be educated by making this matter of supervision less distasteful in every possible way, and by making disease and its effects more distasteful.

DR. ROBISON (closing the discussion): I have nothing to add, except to introduce this resolution upholding the State Board of Health with reference to securing proper state care of consumptives.

Resolved, That it is the sense of the Illinois State Medical Society that the establishment of sanatoria for the state care of consumptives is feasible, and that all efforts by the State Board of Health to this end shall receive the hearty support of the Society. (This resolution was seconded, referred to the general meeting, and was adopted. See minutes.)

OBSERVATIONS AS TO THE EFFICIENCY OF THE CHICAGO HEALTH DEPARTMENT METHOD OF FUMIGATION.*

BY ADOLPH GEHRMAN, M. D., CHICAGO.

The experience of the Chicago Health department with formaldehyde as a disinfectant began during the early months of 1896. After an extended trial of all of the methods that were proposed for the evolution of formaldehyde it was found that they presented conditions such that rendered them impracticable for the routine disinfection. The sheet method now in use was developed during March and April, 1898. It is distinctly a department idea and the credit for its practical application is entirely due to Dr. C. W. Behm, medical officer in charge of the disinfection corps. It has given satisfaction to such an extent that all of the fumigations are now done by this method. At the time of placing the disinfection work un-

*Read at the Fiftieth Annual Meeting of the Illinois State Medical Society, Springfield, May 15, 1900.

der the supervision of a medical officer in May, 1896, Dr. George C. Hunt in charge, a series of bacteriologic controls of the disinfections was begun and has been continued with regularity. This series embraces many hundred tests and has served as a most valuable guide to those directing the work and has been an indication to the men showing the results of their efforts.

That spontaneously evolved formaldehyde gas is a rapid and efficient germicide, is easily proven. The following simple experiment will serve to illustrate this point:

One cubic centimeter of a 40% solution is placed on the bottom of a Petrie dish. A ring diaphragm is placed over the top of the dish and upon this the lid of the dish is allowed to rest, so that a small space is enclosed above the formaldehyde solution. Specimens of diphtheria placed upon microscope slides in a manner similar to that in which specimens for microscopical examination are prepared are then laid upon the diaphragm so that the surfaces are freely exposed. The slides are placed in the space and removed at the end of the times indicated.

1 minute results as to growth on transfers numerous colonies, but distinct.

5 " two colonies.

10 " no growth.

15 " "

20 " "

25 " "

30 " "

The transfers were made by taking up the bacteria with a drop of water and transplanting them to the surface of blood serum.

Our own experiments made during 1897 and 1898, show that nonspore bearing specimens, both in a moist and dry state could be killed in a close space of 1 cu. ft. capacity, with an exposure of less than one hour, when treated with the gas evolved from approximately .15 c. c. of 40% formalin solution. These experiments were conducted with entire regard to the actual amount of formaldehyde present, it being from .05 to .06 grammes per cu. ft. this

amount being found to be the limit of efficiency with one-half hour exposure. Practical tests on a larger scale showed that a somewhat smaller amount would still act with considerable certainty, it being observed that from 40 to 50 grammes of formaldehyde per 1,000 cu. ft. is the minimal amount that can be applied to give results uniformly satisfactory. This amount corresponds with that determined officially for the German army. Pful having found that 30 grammes per 1,000 cu. ft. was the amount that would give a germicidal effect. The minimal amounts of formaldehyde solution of formalin for actual disinfection has therefore been established at 150 c. c. or 5 ounces per 1,000 cu. ft. This amount even allows for slight polymerization for a possible failure in complete evaporation, or for loss by absorption by plaster on moist objects.

The length of time of exposure is not a criterion that requires to be closely drawn. The experiment recited shows that formaldehyde kills bacteria very quickly. The time given for fumigation should be as long as possible. In the practical work of the department it naturally happens that most apartments must be returned to the occupants in time to prepare the evening meal. As the fumigations are usually begun between 10 and 12 A. M. the minimal time allowed the men for completion of the work is five hours, but in the majority of cases the length of exposures is six hours, or longer.

The sheet method of fumigation has been fully described in the bulletins of the department, September, 1898, November, 1898, May, 1899, Jaques Journal. American Medical Association, Jan. 13, 1900. But some features of the method warrant special discussion. The directions to fumigators states that the sheet used must be suspended within the 1,000 cu. ft. for which it is intended. The room or rooms are therefore approximately divided into spaces of about this capacity by the fumigators, and the sheet is suspended within this space. The sheet must not be doubled over, but must be suspended by the corners, so as to hang in one thickness.

The spraying should be such that there are single drops separate and distinct over the sheet. Under these conditions there is hardly a possibility of any object being over 5 feet from the source of generation of the disinfectant, and at the end of the work the sheet will be practically dry. One of the most valuable properties of the method is that the fumigations begin with full force when the sheets are sprayed. The period of exposure is not occupied by the generation of the vapors, but throughout the entire period by their diffusion.

As has been said, a systematic control of the disinfections of the department has been conducted during the past four years. Our first observation, made with a view of controlling the sulfur method showed that the work done was not uniformly efficient. One difficulty encountered was to get the fumigators to understand the amount of sulphur that was required. The men were then forced to weigh the sulphur to be used and a record of these weights was preserved. The results with the test objects showed an uncertainty of action not in accordance with our expectation. Entirely similar experiments were used to check the work done with the many forms of formaldehyde disinfector and other methods that were presented for trial. Several of these were proven efficient beyond a doubt, but for reasons mainly due to practical defects they could not be used and have been dropped from further study.

It has never been expected that department fumigations should do more than surface disinfection. Objects requiring penetration are saturated with antiseptic solutions are boiled or baked or burned. To determine the value of gaseous disinfection the usual test objects have therefore been freely exposed. The moist objects are the culture boxes used by the department laboratory for the diagnosis of diphtheria. The surface of the serum is inoculated and the box is exposed with the lid off. The box is incubated and transfers are made from the surface of the serum to bouillon to demonstrate the absence of a simple restraining effect. Dry objects

are specimens on glass microscope slides prepared in the same manner as making cover glass preparations for microscopical study, but omitting the fixing to which such objects are subjected. These are also freely exposed and after fumigation the bacteria are taken from the surface by rubbing with a drop of water and the platinum rod. Transfers are made to blood serum, agar and bouillon. The cultures are incubated or not, as would be demanded by the species of bacterium used. The most frequently used bacteria are *B. Diphtheria*, *Bacillus Coli Communis*, and *Bacillus prodigiosus*. The results of these tests have been published from time to time in the monthly bulletins of the department and demonstrations have been made. The tests here presented are recent examples from the regular work of control and show especially the effect on dry objects. The results prove beyond doubt that a reasonable degree of efficiency is attained. Dry objects have been frequently exposed, among these is a series of tests using the swabs returned to the laboratory with the diphtheria diagnosis outfits, department bulletin, May, 1899, foot note. The bacteria, mostly mixed cultures on these swabs were killed when exposed to the routine fumigations. The specimens dry on glass, now used as test objects are employed because of the uniform condition in which the specimens are and because these test objects are generally recognized as being more difficult to kill than those on rough surfaces.

Practical fumigation using *Staphylococcus pyogenes albus* as the test object.

Date, March 20, 1900.

Fumigator, Richardson.

Locality, 7143 Emerald ave.

Number of rooms, two.

Contents cu. ft., 2,500 sq. ft.

Amount Formaldehy c. e., 350 c. c.

Number of hours exposed, 8.

Bacterium used in test, *Staphylococcus*.

Kind of specimen, dry on glass.

Location of specimen in room

1. On table.
2. High cupboard.
3. On floor.

4. On stand.

Result: Growths obtained from all four large bacilli with square ends liquifies the blood serum. No staphylococci growths obtained.

Controls, pure staphylococci.

Remarks: 140 c. c. formaldehyde per 1,000 cu. ft.

Date, March 19, 1900.

Fumigator, C. H. Perrigo, Dr. Dowdall.

Locality, 2711 Wabash ave.

Number of rooms, 15.

Contents cu. ft., 36,624.

Amount formaldehy c. c., 6,592.

Number hours exposed, 8.

Bacterium used in test, staphylococci.

Kind of specimen, dry.

Location of specimen in room.

1. On chair.

2. On floor.

3-4. On mantle.

5-6. On table.

7-8. On floor.

Result: No growth from any of the slides used.

Controls, pure staphylococcus was obtained from the control.

Remarks: 125 c. c. formaldehyde per 1,000 cu. ft.

Practical fumigations using bacillus diphtheria as the test object.

Date, April 19, 1900.

Fumigator, C. H. Perrigo.

Locality, 2943 Quinn street.

Number of rooms, 4.

Contents cu. ft. 8,505.

Amount formaldehyde c. c., 1,530.

Number hours exposed, 6.

Bacterium used in test, diphtheria.

Kind of specimen,

Location of specimen in room.

1. Window 6 ft. from sheet.

2. Window 6 ft. from sheet.

3. Window 4 ft. from sheet.

4. Window 4 ft. from sheet.

Result: No growth.

Controls, diphtheria.

Remarks: 180 c. c. formaldehyde per 1,000 cu. ft.

Date, April 19.

Fumigator, C. W. Carr.

Locality, 619 W. 44th street.

Number of rooms, 3.

Contents cu. ft., 4,500.

Amount formaldehyde c. c., 800.

Number of hours exposed, 6.

Bacterium used in test, B. diphtheria.

Kind of specimen, dry on glass.

Location of specimen in room.

1. Not given.

2. Not given.

3. Not given.

4. Not given.

Result: No growth from any of the four slides.

Controls, good growth (diphtheria).

Remarks: 177 c. c. formaldehyde per 1,000 cu. ft.

Date, April 14, 1900.

Fumigator, Gray.

Locality, 2567 Paulina st. (North)

Number of rooms, 1.

Contents cu. ft., 3,000.

Amount formaldehyde c. c., 450.

Number of hours exposed, 7.

Bacterium used in test, diphtheria.

Kind of specimen, dry.

Location of specimen in room.

Result: No diphtheria, a few colonies of contamination.

Controls, good growth of diphtheria (contaminated).

Remarks: 150 c. c. per 1,000 cu. ft.

Date, April 13, 1900.

Fumigator, C. W. Carr.

Locality, 244 W. 45th st.

Number of rooms, 3.

Contents cu. ft., 4,400.

Amount formaldehyde c. c., 700.

Number hours exposed, 6.

Bacterium used in test, diphtheria.

Kind of specimen.

Location of specimen in room.

Results: No growths.

Controls, good growths (diphtheria pure).

Remarks: 151 c. c. 1,000 cu. ft.

Anthrax cultures with spores used as a test object showing resistance of such specimens.

Date, March 29, 1900.

Fumigator, Gray.

Locality, 614 Leland ave.

Number of rooms, 2.

Contents cu. ft., 4,000.

Amount formaldehyde c. c., 600.

Number hours exposed, 8.

Bacterium used in test, anthrax (with spores).

Kind of specimen, dry.

Location of specimen in room, high and low.

Result: 10 or 15 colonies of pure anthrax in each of four boxes.

Controls, good growth over whole surface of inoculation.

Remarks: The formaldehyde was full of paraform heated solution before using and it was still cloudy when used.

Date, March 29, 1900.

Fumigator, C. W. Carr.

Locality, 5542 Dearborn st.

Number of rooms, 2.

Contents cu. ft., 3,400.

Amount formaldehyde c. c., 500.

Number hours exposed, 6.

Bacterium used in test, Anthrax (with spores).

Kind of specimen, dry on slides.

Location of specimen in room, on stand.

Result: Pure anthrax. Growth obtained over the whole surface of inoculation.

Controls, strong growth whole surface of inoculation.

Diphtheria specimens as test object wrapped in one thickness of sheeting.

Date, April 21, 1900.

Fumigator, Dowdall.

Locality, 3748 Rhodes ave.

Number of rooms, 7.

Contents cu. ft., 12,000.

Amount formaldehyde c. c., 2,160.

Number hours exposed, 7.

Bacterium used in test, B. diphtheria.

Kind of specimen, dry on glass in cloth.

Location of specimen in room.

1. 3 ft. from sheet.

2. 4 ft. from sheet.

3. 5 ft. from sheet.

4. 8 ft. from sheet.

Result: Killed.

Controls, growth pure diphtheria.

Remarks: One thickness of cloth sheet over the specimen on the glass.

180 c. c., formaldehyde per 1,000 cu. ft.

Date, April 30, 1900.

Fumigator, Gray.

Locality, 445 Garfield.

Number of rooms, 7.

Contents cu. ft. 1,000.

Amount formaldehyde c. c., 1,500.

Number hours exposed, 7½.

Bacterium used in test, diphtheria.

Kind of specimen, dry on glass, in one thickness on sheet.

Location of specimen in room.

1. Not given.

2. Not given.

3. Not given.

4. Not given.

Result: No growth.

Controls, active growth, diphtheria.

Remarks: 150 c. c., per 1,000 cu. ft.

Diphtheria specimens exposed in one thickness of blanket. Experiment shows penetration through the blanket.

Date, May 8, 1900.

Fumigator, J. F. W. Helmuth.

Locality, 1347 Oakdale ave.

Number of rooms, 2.

Contents cu. ft., 2,200.

Amount formaldehyde c. c., 330.

Number hours exposed, 7:45.

Bacterium used in test, diphtheria.

Kind of specimen, dry on glass in blanket.

Location of specimen in room.

1. On chair.

2. On bed.

3. On window sill.

4. On dresser.

Result: No growth.

Controls.

Remarks: One thickness of blanket, 150 c. c., per 1,000 cu. ft.

Date, May 8, 1900.

Fumigator, C. H. Perrigo.

Locality, 2954 Cottage Grove ave.

Number of rooms, 3.

Contents cu. ft., 4,800.

Amount formaldehyde c. c., 864.

Number hours exposed, 6.

Bacterium used in test, diphtheria.

Kind of specimen, dry on glass in blanket.

Location of specimen in room.

1. Window 5 ft. from sheet. Result: No growth.

2. Window 5 ft. from sheet. Result: No growth.

3. Table 4 ft. from sheet. Result 2 colonies not diphtheria.

4. Table 4 ft. from sheet. Result: No growth.

Controls. pure diphtheria.

Remarks: One thickness blanket. 180 c. c., per 1,000 cu. ft.

Test made using diphtheria rolled in blanket and sheet and shows failure to penetrate through this thickness.

Date, May 8, 1900.

Fumigator, C. W. Carr.

Locality, 5142 Emerald ave.

Number of rooms, 3.

Contents cu. ft., 4,500.

Amount formaldehyde c. c., 1,800.

Number hours exposed, 6.

Bacterium used in test, diphtheria.

Kind of specimen, dry on glass, blanket and sheet.

Location of specimen in room.

1. On stand. Result: Few colonies.

2. On floor. Result: One colony.

3. On window sill. Result: Few colonies.

4. Bureau. Result: Film not thick.

Controls, active growth diphtheria.

Remarks: Sheet outside blanket, one thickness of each. 400 c. c., formaldehyde per 1,000 c. c.

These are not specially arranged experiments, but are examples from the general work and are fair in showing the results that are being obtained in the department and that may be expected with the sheet method of formaldehyde disinfection.

DISCUSSION.

DR. FRANKLIN E. WALLACE, Monmouth: I am much interested in the paper of Dr. Gehrmann, because during the past year I have been employing this method. I have fumigated about fifty homes, and have not had any recurrence of the disease. I found one trouble in getting the little drops on the sheet that Dr. Gehrmann spoke of. I have been afraid that the formaldehyde is more apt to run and get

the sheet entirely wet instead of having little droplets. It may be the fault of the apparatus which I am using. Possibly he can explain that.

DR. JAMES A. EGAN, Springfield: During the past year there has been recommended to the medical profession a disinfectant which is said to have all the advantages of sulphur. The Illinois State Board of Health has been experimenting quite extensively with formaldehyde. The sheet process has been dwelt upon at length by Dr. Gehrmann. The Illinois State Board of Health has conducted since June, 1899, probably fifty experiments with this process, and we are continuing to make these experiments, but I regret to say that up to the present time our results have not been satisfactory. It is possible that atmospheric and other conditions prevail which render it impossible for us to obtain the results in Champaign which Dr. Gehrmann obtains in Chicago. And yet, as has been stated by Rohe, there can be no partial disinfection of infectious material. Its infectious power must be entirely destroyed, or there is failure of disinfection. The sheet process failed to disinfect. Disinfection with formaldehyde by this or an other method seems to be full of unsettled problems. I might say parenthetically, that all of the experiments were conducted under the direction of Professor Burrell of the State University. We found that when the temperature was below 40 to 50 F., it was impossible to obtain surface disinfection. In view of these facts, the Board does not feel justified, in the presence of disease, in recommending formaldehyde for disinfection. Furthermore, referring to the sheet process, Professor Burrell says it is difficult to spray in the proper manner, even if you have the right apparatus, with 150 c. c. of formaldehyde on the sheet. Formaldehyde is very irritating. Professor Burrell believes that good results cannot be obtained with surface disinfection even with 250 c. c.

DR. J. E. ALLABEN, Rockford: I believe the ordinary method of disinfecting rooms by health officers in various towns is by a lamp in which formaldehyde is generated from wood alcohol. I would like to have Dr. Gehrmann give us his opinion as to its efficacy.

DR. GEHRMANN (closing the discussion): I have taken part in several discussions in which the time was lengthened out to several hours without reaching definite conclusions. I wished especially in my paper to leave out all references to other experiments in the literature of the subject, because I felt if I referred to all of the previous work in this direction it would carry me beyond my limit. All of the methods that have been used, in which formaldehyde has been generated from solutions, have been efficacious. Lamps will give satisfactory disinfection if they are of the right size and you have a sufficient number of them. If you use Schering's pastilles you can get good results, if you have the right temperature. But all of those methods I have found to be unsatisfactory from a practical standpoint. In the

first place, when you attempt to generate formaldehyde, you cannot do it to the same advantage or at the same cost that the manufacturer can make it, for you set the lamp going in a room and you expect formaldehyde. You can buy formaldehyde at so much a pound. You may change 50 per cent. of it into formaldehyde, and you may not get more than 10 per cent. *

As to why some of these results are variable. At the last meeting of the American Public Health Association I discussed this subject very thoroughly, and I am inclined to think that with a more extensive experience of persons who have had to do with formaldehyde disinfection, we will not have a discussion of this kind. I am simply willing to wait until that period arrives. I am perfectly certain for surface disinfection, that we can use it, generate it spontaneously from solutions and get entirely satisfactory results, even at times when the temperature is low. We disinfected barracks in which soldiers had been all summer and winter after their return from the south, the space that was disinfected being something like 32,000 c. c. There were a great many sheets hung up. One man was overcome and remained unconscious for half an hour, in placing formaldehyde upon the sheets, on account of the space being so large. It was a cold day in the fall, and we made a lot of transfers from the diphtheria swabs and found that the bacteria were killed. The rooms in that case were allowed to be closed during the entire night.

CHOLELITHIASIS.*

BY J. W. HAIRGROVE, M. D., JACKSONVILLE.

The subject of Cholelithiasis is not new, yet I find by reference to this Society's reports that it has occupied but little space therein.

My attention, to the subject, is attracted by its importance clinically, and by the few cases that I have to report in reference to diagnosis.

I quote largely from authorities, as: Waring, Mayo Robson, French, Naunyn and others.

By the term Cholelithiasis we mean that pathological condition of the liver and biliary system which gives rise to the presence of formation of gall stones. The importance of the subject may be gathered from the fact that post mortem records, on persons of all ages and both sexes, show their presence in from 4.4% to 12%.

Pathology and etiology. According to

Mayo Robson, gall-stones vary in size from "Biliary Sand" to the size of a golf ball or larger. Richter found one, in a post mortem, which weighed more than 3½ ounces. They may be almost any shape, but when numerous are usually faceted and angular. When single they are usually large. Frequently they are found in great numbers, many cases have been reported of several hundred.

In color they are variable: sometimes gray or white, again dark or quite black, but their usual color is dark yellow or brown.

In consistency they are usually firm but can be fractured with slight pressure.

Their chief constituent is Cholesterin, but bile pigment, bile salts, lime, mucous, degenerate epithelium and occasionally foreign bodies may enter into their composition.

In the majority of cases, authorities apparently conclude that the formation of these concretions is associated with the existence of obstruction to the free outflow of bile into the duodenum.

Usually this obstruction is only partial, and is often dependent upon inflammatory processes within the intestine or the ducts themselves. Naunyn, in "Klinik der Cholelithiasis" 1892, describes as an exciting cause, the presence of the bacterium *Coli Communi* which causes an inflammatory condition of the mucous lining of the ducts. This bacillus, as is well known is a constant inhabitant of the intestinal canal, and when the flow of bile through the common duct has been slowed owing to some abnormal condition, or by whatever cause, it has been assumed that this micro-organism obtains an entrance into the interior of the biliary system by passing through the common opening of the bile duct.

It also appears possible, if an obstruction to the lumen of the alimentary canal (especially in the third portion of the duodenum) becomes established even temporarily, from pressure from without, as by corset lacing or postural habit, or when the colon is loaded with feces, that, when the ordinary movements of peristalsis takes

*Read at the Fiftieth Annual Meeting of the Illinois State Medical Society, Springfield, May 18, 1900.

place, the contents of the small intestines may be forced a short distance along the common bile duct, and thus any micro-organism which happened to be in the duodenum, would pass into the same.

Naunyn thinks that the sequence of events in the formation of gall stones is as follows: After the bacilli have found entrance into the bile ducts and gall bladder they grow and multiply and induce the catharrhal condition of the mucous membrane upon the existence of which the development of gall stones depend. Again, Waring says, "The bacilli act as an irritant to the mucous membrane lining, the gall bladder, either mechanically or by the production of chemical products of the nature of potmaines or toxins, and in this manner produce an inflammatory condition of the epithelial cells which cover the surface of the mucous membrane." As a result of this inflammatory condition, the metabolic processes of the epithelial cells appear to undergo considerable modifications.

If the cells are examined with the microscope, many of them will be seen to be swollen, and their interior to be occupied by myelin-like masses, which are being extruded upon the surface of the mucous membrane and there crystallising so as to form small masses or clumps of cholesterin. In some places these swollen cells may become aggregated together so as to form a small mass in which there may be a few blood corpuscles. Crystals of cholesterin may be deposited on the surface of this mass, and in this manner the formation of a biliary calculus commences. As a calculus which has arisen in this way increases in size, numerous layers of cholesterin, or of compounds of bilirubin and calcium, are deposited upon the exterior, and gradually give rise to an enlargement in all the dimensions of the calculus. Frerichs essentially agrees with the foregoing hypothesis in his treatise upon diseases of the liver when he says, that the formation of gall stones is due to stagnation of bile in the liver. When this slowing of the flow of bile within the liver has existed for some time an excess of mucous is secreted by

the walls of the gall bladder, which undergoing decomposition gives rise to an acid re-action favorable to the precipitation of cholesterin and bilirubin.

The cholesterin being precipitated in the form of crystals and bilirubin in the form of an amorphous calcium compound.

According to many observers it seems to be demonstrated that typhoid fever is often followed by cholelithiasis and it is no uncommon occurrence that the bacillus of Eberth is found within the gall bladder. Waring maintains that when micro-organisms are very virulent they set up acute inflammation of the biliary passages and when they are attenuated, or have lost much of their virulence, they cause a sub-acute inflammation which terminates in the establishment of cholelithiasis. But the evidence to support this view of the pathology of the affection is not altogether trustworthy. The amount of bile acids present in the bile, has been thought by some to have connection with the formation of gall stones.

The bile acids help to keep the cholesterin in solution, and if from any cause the relative quantity of these acids is diminished, either by the increase of the amount of cholesterin secreted by the cells of the mucous membrane of the gall bladder (as in inflammatory conditions of the membrane) or, owing to a diminution of the quantity secreted by the hepatic cells (a condition said to be favored by a non-nitrogenous diet) the cholesterin, which is in solution in the bile is precipitated and small calculi commence to form.

The greater frequency of cholelithiasis in Germany and Switzerland has been explained on this hypothesis, namely that Englishmen live on a diet which is much more nitrogenous. A similar argument has been adduced to explain the greater frequency of gall stones in aged people and in females. The grounds of these arguments are too theoretical to afford a reasonable and correct explanation of the occurrence of gall stones.

An undeniable authority upon the subject, who further formulates the present state of pathology concerning the develop-

ment of cholelithiasis indicates that two conditions are requisite for the formation of gall stones, namely, (a) the presence of an obstruction to the free flow of the bile from the gall bladder or the biliary ducts; and (b) the infection of these organs by a variety of attenuated micro-organisms capable of inducing a subacute inflammation of the mucous membrane of the affected structure. But further investigation will doubtless throw more light upon this field.

I should fail seriously in the presentation of this subject did I not express my own views on the importance of diet as an etiologic factor in the causation of this disease.

Intemperance in eating, over-indulgence in exclusively nitrogenous foods, engorgement from excess of rich foods and irritating condiments is too common among us.

The French are very fond of fat goose livers from which they make a dish called "Pate de foies gras." To obtain these livers they confine the geese separately in small coops and feed them all the fattening foods they can be made to swallow. In a short time the livers of the fowls become three or four times their natural size and then the geese are killed. Some people treat themselves as these fowls are treated though their demise may not be so sudden. By intemperance in eating, the liver, the largest glandular or elaborative organ in the economy, thus has a stress of labor thrown upon it, through which its function cannot properly be preserved, and there follows a condition of chronic passive hyperemia, a congestive state commonly entitled sluggish liver, with consequent interruption of the flow of the bile. This state can be relieved by restricting the diet and oftentimes by the free use of fruits. The fresh fruits such as apples, peaches, strawberries, oranges etc., have often been prescribed in jaundice with satisfactory results.

Symptoms. Perhaps a majority of cases have no symptoms.

Biliary calculi may exist in the gall bladder or occasionally in some portion of the bile ducts without giving rise to the manifestation of any symptoms by which

their existence can be diagnosed or even surmised during life. The first symptoms to be noticed are the appearance of pains about the upper right side of the abdomen; the right hypochondriac and epigastric region. These pains may be slight or severe and colic like or paroxysmal in character. Oftentimes when severe accompanied by nausea and digestive disturbances. These attacks may or may not be accompanied by jaundice. These attacks are described as being first localized in the right hypochondriac or epigastric region from which, a little later, it radiates forward over the anterior area of the abdomen toward the umbilicus and also backward toward the inferior angle of the right scapula. These paroxysms of pain may come on after taking some variety of physical exercise or after a full meal, but may occur spontaneously without apparent exciting cause. Usually they commence during the daytime when the patient is up and about, but it sometimes happens that the patient is awakened at night with a paroxysm. An attack may last for several minutes or several hours, and in severe cases for even a longer time. These symptoms are caused by the passage of gall stones from one part of the biliary system to another. In many cases, however, gall stones have passed from the gall bladder along the cystic and common duct into the intestine and have been voided per anum and their presence not surmised until they have been discovered in the feces owing to the absence of any pain indicating their existence.

No sign then, can be said to be pathognomonic of their existence. A case in point may illustrate how extensive disease may exist without the ordinary signs being present; O. M., an adult male, 26 years of age and unmarried, by occupation a baker, presents himself for examination with the following history. For two weeks had had soreness and pain, not paroxysmal, in the right hypochondrium. At the border of the ribs, a tumor the size of an orange presented. The accompanying symptoms were not so severe as to demand

anodynes or sedatives and he was kept in the hospital one week for observation. During this brief period he was not confined to his bed, neither was there jaundice, and but slight elevation of temperature. He was then allowed to go to his home, returning in another week with a persistence of pain and no increase or amelioration of the symptoms. Exploratory incision was then advised, and accordingly made. Upon going through the abdominal wall an inflammatory mass with thickened and adherent peritoneum, dense adhesions to the colon and duodenum were laid bare. By separation of the adhesions the gall bladder, thickened and inflamed was uncovered and found to be packed with gall stones some of which were upon the point of emerging by ulceration through the walls of the cystic duct.

Cholecystostomy was made with final and complete recovery. It is difficult to explain how such marked pathological condition as local peritonitis, active cholecystitis with surrounding adhesive inflammation could exist without giving rise to more grave or positive symptoms. Unquestionably the active disease must have existed much longer than three weeks as covered by the above history.

A second case presents totally different symptoms. Mrs. F. aged 43, spare habit; mother of several children; had for some time complained of paroxysmal pain. A movable tumor could be felt in the right hypochondrium and right loin, which had been diagnosed as probable floating kidney for which it might be readily taken. Careful palpation revealed its connection with the liver. There had never been icterus present and classical symptoms of gall stones were lacking. Operation being made a distended gall bladder was found in which a handful of angular, faceted calculi was obtained, and with no apparent obstructions of the ducts. However, a cholecyst-duodenostomy was made with a Murphy button which was followed by a perfect recovery but as yet, 9 months later the button has not been found.

A third case; Mrs. B. aged 34, plethoric, and general aspect of being well fed.

Nullipara. Had for some two or three months been having gradually increasing paroxysms of pain in the epigastrium accompanied by violent vomiting and jaundice. These pains were becoming more and more marked and frequent, with complete anorexia. Operation upon this patient revealed a dilated cystic duct and the gall bladder containing one large, and numerous smaller granular calculi. The larger had probably occupied the common duct acting as a ball valve.

The operation was concluded as a simple cholecystotomy, the fistula closing in a short time spontaneously since which there is complete restoration of health and absence of symptoms.

In these reported cases but one of these presented ordinary symptoms of gall stones. In-as-much as carefully performed exploration by incision can be made with little or no mortality, the writer feels justified in recommending this procedure when marked digestive disturbances have occurred accompanied by tenderness or pain in the region of the gall bladder.

Moreover, it is generally agreed that all therapeutic efforts at cure are absolutely impotent in the actual presence of biliary calculi of whatever character.

DISCUSSION.

DR. GEORGE W. WEBSTER, Chicago: I desire to say a few words in reference to the diagnosis of gall stones. It will facilitate our thinking very much in regard to these cases if we divide them into two classes, those in which there is jaundice, and those in which there is no jaundice. This enables us to say whether the case is one of stone in the cystic duct, in the gall bladder, or in the common duct. It goes without saying, that in the latter condition, stone in the common duct, there is practically always jaundice, at least, if the stone is large enough to cause any obstruction, and therefore give rise to any symptoms. On the other hand, when the stone is in the cystic duct, or when it is in the gall bladder, there is necessarily never any jaundice as the result of its presence. The division of the cases into two classes facilitates our thinking and enables us to arrive at more nearly correct conclusions in regard to it.

Then, too, in regard to whether the stone is impacted in the common duct, or freely movable in this tube, it becomes a matter of a great deal of importance before operation is decided upon. This we can usually determine in two ways, by the physical signs and by the symptoms. It is well-known in these cases in which there is stone in the common duct, and it is

freely movable, particularly where it has the ball-valve action so well described by many writers, the gall bladder is diminished in size. There is no tumor that may be felt; while, on the other hand, if there be obstruction in the cystic duct, those are the cases in which a tumor may develop of considerable size and may very readily be felt by the palpating finger. If the stone is movable in the common duct, there is no enlargement of the gall bladder, consequently a mere physical examination is of no value. But there are certain symptoms that guide us, and usually one of these is jaundice. If the jaundice is persistent, then the stone is likely to be fixed, not movable in the duct. On the other hand, if we have a patient with attacks of colic, followed by severe jaundice, with the clay-colored stool, with bile in the urine; if we find now that gradually the stool becomes slightly darker, the urine lighter, the patient's skin clears up, this to be succeeded in two or three days or three weeks by another recurrence, another attack of jaundice, pain, colic, staining of the urine with bile, and the feces again becoming lighter in color—all these symptoms indicates that there is at least one or more stones freely movable in the common duct. It is important to distinguish clearly between those cases in which there is a stone in the cystic duct and those in which there is stone in the common duct, on account of the great difference in the method of operating, also in the mortality from the operation, and the results as far as the patient is concerned, and the extreme differences in difficulty in operating in the two cases. In one case the operation is comparatively simple; while in the other, in which there is a stone in the common duct, the operation is one of the most formidable.

A GYNECOLOGIC EXAMINATION.*

How It Should Be Conducted for Diagnostic Purposes.

BY C. C. HUNT, M. D., DIXON.

It is not my purpose to go over the whole field of gynecologic exploration, nor consider examinations of the mammary glands, nor those large tumors of the abdomen to which the human female is not infrequently subject. I shall limit this paper to the very general consideration of the best methods of conducting the examination of those cases which usually come to our office. My remarks shall be general rather than special, are addressed to the general practitioner, not to the specialist,

and I shall leave out all discussion of questions involving differential diagnosis. What, then, are some of the essentials which go to make the general practitioner an efficient and safe diagnostician? First of all, he or she should understand what cleanliness is and how to put it in practice. That no internal gynecological examination should be attempted with other than a clean hand, or a clean instrument, or both, is a proposition that no one can successfully oppose.

The affirmative is especially true, if a surgical operation is to immediately follow such an examination. Pathogenic microorganisms do not exist within the genital canal except when introduced from without. They are never present under normal conditions. In the light of our present knowledge, the one who introduces them when making a gynecologic examination, is guilty of exposing the patient to infection with all that that implies. An unclean finger or instrument may be the means of converting a simple nonpurulent endocervicitis into a purulent endocervicitis, and consequent hyperplasia, if nothing worse. Some years ago I had personal knowledge of a case of some trivial female trouble, real or imaginary, which was transformed into a case of pseudomembranous vaginitis, complicated later with purulent endocervicitis, and later still, with purulent pleurisy. The preponderance of evidence went to show that all this was due primarily to the use of a non-sterilized speculum by a dirty hand. This patient was compelled to undergo a severe surgical operation and a protracted convalescence, before recovery took place. Last year at one of the hospitals in Chicago a woman presented herself with a double pyo-salpinx, which, without reasonable doubt, was caused by the introduction of an infected sound into the uterine cavity by a physician at his office. It became necessary to remove the uterus and adnexae in order to save the woman's life. A quite similar case came under my observation only a few months ago. In the light of today such "accidents" are too common and should

*Read at the Fiftieth Annual Meeting of the Illinois State Medical Society, Springfield, May 16, 1900.

not occur. Is it too much to say they are due to either criminal ignorance, or, what is worse, criminal carelessness?

There are two common routes through which pathogenic microorganisms gain entrance into the intra-pelvic organs, (a) through the vagina, uterus and tubes; and (b) through the lymph channels. These two routes are not the only ones, but they are the ones most traveled. Fortunately nature has most wisely put a sort of barrier to their entrance by the former route, by means of a sort of constriction at the junction of the cervix with the body of the uterus, the os interum, which, under normal conditions, is shut. Another obstruction is the outward flow of the menstrual blood and of the excretions from the uterus. The entrance to the lymph channels is shut off by the skin and mucous membranes. These, so long as they are intact, form a perfect protection against invasion through this route. Moreover, there is an acid secretion from the vaginal mucous membranes that acts as a germicide under ordinary conditions. But for these barriers the human race would have become extinct.

The object of a gynecological examination is to determine whether or not anomalies are present, and if present, the nature of them; in short, to arrive at a correct diagnosis of abnormal conditions involving the female sexual organs. It is evident that this examination should be conducted in such a way as to gain the greatest possible knowledge of the conditions present, and, at the same time, to subject the patient to the least possible danger. A gynecological examination having these objects in view is wholly the outgrowth of the present century, as you all know. But a gynecological examination, as conducted today, is a very different affair from what it was even a decade ago. Up to within a very short time the speculum, the probe and bimanual manipulation were regarded as indispensable to a thorough examination. Now, in the vast majority of cases which come under our care, the digital touch alone, if properly executed, is sufficient to

put us in possession of a vast amount of information, perhaps all we require in the case before us. The great importance of the speculum now rests more upon its value as a surgical than as a diagnostic aid; nor can we forget the fact that it has frequently given rise to erroneous impressions as regards the pathological conditions present. Nor is the uterine sound necessary today to determine the position of the uterus. The mischief laid at its door in the past we do not desire to contemplate. The bimanual method, for so many years regarded as an indispensable procedure in a properly conducted gynecological examination, no longer holds the sway that it did, while it, too, often gave rise to erroneous views as to the position of the uterus. Each of these still has its merits as a diagnostic aid, yet neither is necessary in the vast majority of instances in order to arrive at correct conclusions.

POSITION OF PATIENT.

The side position of Sims is now but little used. The back position on any convenient and comfortable table is the one now most in vogue. The thighs are well flexed, the feet in stirrups, the buttocks projecting beyond the edge of the table. The waist band loosened, corsets removed and the patient put at ease so that the abdominal muscles are relaxed as much as possible. This is aided considerably by slightly elevating the pelvis and by having mouth of patient slightly open. The hands and all instruments should be prepared with almost as much care as for a surgical operation. At the risk of appearing somewhat tedious, I will venture to suggest the following as a very efficient and rapid method of hand disinfection; not the ideal, but practical and safe under ordinary circumstances: Scrub well with soap and warm water, rinse with running water, then scrub with a 1½ per cent. lysol solution. Lysol has about 4 times the germicidal power of carbolic acid. Do not wipe hand, as the lysol is a good lubricant, no other need be used. The patient's knees widely separated, the labia are held apart with the thumb and

forefinger of left hand and the introitus carefully inspected. Search for the minute orifices of the glands of Bartholini about the size of split peas, which lie on the posterior lower third of the labium minus. If markedly hyperaemic, and especially if pus is seen issuing from them, it is highly probable that the gonococcus of Neisser has been getting in its work, and it should be sought for by the microscope. Next seek for perineal lacerations, for rectocele, for vesico-Vaginal fistulae, for anomalies of the neck of the uterus or of the urethra or bladder, all by index finger. Not many years ago the diagnostic powers of the finger were here about exhausted, but, at the present time, when all these points have been surveyed, the great value of this diagnostic means has scarcely begun. Here the higher powers of the educated sense of touch are brought into play and the position, size and shape of the uterus, the condition of its walls and that of its adnexae are outlined with remarkable accuracy, that is to say, generally speaking. Pelvic deposits and old adhesions may interfere more or less and obscure these outlines, but peri-uterine deposits and adhesions may also be mapped out, often with very great accuracy. Unless the hymen is intact and we do not wish to disturb it, much may be gained by introducing two fingers. This gives an advantage of from one-half to three-fourths of an inch. A half inch added to the practical length of the examining fingers adds wonderfully to their exploratory power. An ovary, a tube or other intra pelvic object is revealed by this method, which had entirely escaped the reach of the single finger. The fingers should be introduced with the utmost gentleness. If done too rapidly or roughly the abdominal muscles contract, the knees are drawn together and the examination is interfered with. In seeking for an ovary the fingers are pushed against the vaginal vault and gently swept around the cervix. If neither is felt try again, have the patient open mouth and take a full breath. The deep inspiratory movement will often float the ovary down so that it can be palpated.

Sometimes it may be felt impinging against the finger at each inspiratory effort of the patient, and recede beyond the touch at each expiratory movement. The fallopian tubes proceeding from the cornua may be traced and the condition of the broad ligaments as well, especially if these organs are diseased. Indeed, nearly every organ, nook and cranny within the true pelvis may be explored by the experienced fingers. I have time and again been surprised at the revelations brought out by the two finger method, on the heels of the negative or unsatisfactory results obtained by the index finger alone.

When using the two fingers the position of the hand is of great importance. The radial edge of the index finger should be towards the center of the sub-pubic arch, the volar surface of the thumb on the mons veneris and the ulnar edge of the second finger should be against the posterior commissure. This position of the hand will admit of a considerably farther entrance of the fingers against the elastic vaginal vault, than if the hand is so turned that the radial edge impinges against a descending pubis ramus.

Whether the digital examination has been satisfactory or not, it is well to supplement it with the bimanual for the purpose of corroborating the evidence afforded by the digital examination. Sometimes the conditions are such that more can be gained by it than by any other method. This is especially so when the uterus is situated very high and more particularly when fixed so by adhesions. It must be done with gentleness, with the greatest care indeed, in case of suspected pyosalpinx, to avoid rupture of the tube.

If the perfection of the bimanual method has been regarded as of such vast importance as to mark an epoch in the science of gynecological exploration, the perfection of the bidigital method deserves no less an encomium. Mastery of both is as essential to correct gynecologic diagnosis as the mastery of auscultation and percussion to that of physical exploration of the chest. It must be obtained by prac-

tice, by systematic object lessons; it cannot be learned from books.

Examination per rectum should be practiced in virgins, or in cases of obstruction at the entrance or within the vagina, and in case of retro-uterine tumor. In the last, examination per rectum has the advantage over all other methods. It should be done with the well lubricated index finger, or index and middle fingers, never with the whole hand, as suggested by Simon. Simon's rectal examination is barbarous even under an anesthetic.

It has long been a desideratum of much importance, as to how the finger may be introduced within the vagina so as not to carry with it microorganisms from without. It cannot be done under the clothing. The danger from this source can be reduced to a minimum by exposing the parts and separating the labia by the thumb and finger of the left hand, so that the examining finger does not touch the hair or the outer parts at any point. It is a good plan to have hair trimmed short, and have patient scrub the outer parts with soap and water and then with some antiseptic solution and apply a sterile napkin before going to the physician's office. In no event should the examining finger sweep over the anus or perineum on its way to the introitus. These parts are rarely free from bacteria, especially from the bacillus coli communis. I had under my care a young lady with an attack of pyosalpinx wherein the only microorganism present was the colon bacillus. It is well known that under conditions favorable to its growth, this organism is capable of doing a heap of mischief.

Professor A. Belcham Keyes, of the Polyclinic Hospital, Chicago, has formulated the following as a routine method of conducting a gynecological examination. It will be found very convenient to refresh the memory, and I take the liberty to subjoin it.

GENERAL.

Inspection, palpation, percussion, auscultation, mensuration, chemic, microscopic.

SPECIAL.

Inspect external genitalia. (a) The la-

bia. (b) Perineum. (c) Clitoris. (d) Meatus urinarius. (e) Orifices of glands of Bartholini. (f) Vagina and cervix uteri by speculum.

VAGINO-ABDOMINAL PALPATION.

(a) Feel for glands of Bartholini (size of split pea). (b) Feel perineum. (c) Feel bladder. (d) Feel rectum, without external hand. (e) Feel anterior of uterus. (f) Feel posterior wall. (g) Outline uterus. (h) Outline adnexa.

I have no means of determining the ratio of septic cases to the total of gynecological cases in the hands of any one or more individuals. Well collected statistics of this nature would doubtless show a very large preponderance of cases that were of septic origin. To contribute my mite towards lessening the number of these is the principal object of this paper.

THE COLONIAL TREATMENT OF EPILEPSY.*

BY DANIEL R. BROWER, M. D., LL. D.,
CHICAGO.

Professor of Mental and Nervous Diseases, Rush Medical College, and in the Woman's Medical School of the Northwestern University, etc., Chicago.

Epilepsy is one of the most ancient of recognized diseases. Hippocrates wrote about it learnedly, and by irrefutable arguments opposed the idea that in his day it had universal recognition as a sacred disease, and that its victims were either the special recipients of divine favor or of demoniacal possession; notwithstanding the many years of clinical experience the disease has, until very recently, almost baffled our efforts in treatment, and we are still ignorant of its real nature. We readily recognize its clinical aspects, but the pathologist and the chemist alike fail to explain satisfactory its phenomena. We know heredity plays an important part in its etiology, and an encouraging sign of the times is the fact that the commonwealths of Connecticut and Pennsylvania have each passed laws regulating marriages, not very comprehensive, it is true,

* Read at the Fiftieth Annual Meeting of the Illinois State Medical Society, Springfield, May 16, 1900.

yet if in force, they will diminish the production of epilepsy and insanity. We know that the proportion of epileptics to the population is about one to five hundred. The Board of Public Charities of Illinois, in a recent report, estimate the number in this state at about 8,000. We know that the treatment of the epileptic in his own home rarely results in cure, because the complex disorder demands more than pills and powders for its removal, and must have associated with these a carefully planned hygiene with judicious occupation and training. The mere prescribing of the drugs is often easy enough, but to secure the other essentials is usually impossible. Much better results can be had in a general hospital, but you cannot immerse them long in such an institution. The condition of the average epileptic is deplorable. He is a constant source of solicitude to his family, practically an outcast in society, for who would care to employ as a domestic, as a coachman, as a clerk, or what-not, a known epileptic? Who would encourage them in any of the trades? What prospects have they in medicine, law or theology, and the great question is, What shall we do with them? This important question has been answered satisfactorily in some places by the establishment of special institutions for their care and treatment, and especially in those conducted on the colony plan. This colony plan consists in locating them in cottages, accommodating from twelve to twenty, upon large tracts of land, provided with every means for rational employment, education, amusement, with such drug treatment and diet as each case demands. The first effort towards the special care of epileptics was made by the Bishop of Wurzburg in 1773. The first practical colonizing of epileptics was made by a clergyman, John Bost, at LaForce, France, in 1862, where the work is still carried on creditably. The most noteworthy of these establishments is the Bethel Colony, near Bielefeld, Germany. The work was begun here on a small scale in 1867. In 1872 a German nobleman and clergyman, Friedrich von

Bodelschwingh, took up this work here and has made it a marvelous success. There are gathered together about 1,500 patients. During the thirty years 5,028 have been cared for, of whom 388 have been discharged as cured, 1,099 as improved and 991 have died. The estate on which the colony is located contains about three thousand acres. There are 11 physicians and 6 pastors connected with the colony. The patients are separated into 130 families, with from ten to twenty in a family. They are located in upwards of fifty houses. Patients are given outdoor employment at farming, gardening, and in over twenty shops, where printing, bookbinding, shoemaking, tailoring, saddlery, cabinet work, iron-foundrying, blacksmithing and brickmaking, and so forth, are carried on. Some part of each day is devoted to recreation and to school-room work. The Wuhlgarten Asylum, near Berlin, conducted somewhat after the plan of the Bethel Colony, contains a thousand patients, but with only 222 acres of land. The cottages are planned to accommodate from thirty to forty patients, and the medical service is directed by six physicians. There are three similar institutions in Switzerland; the most important of these is at Zurich. There are three buildings in this colony, with 150 patients and 25 acres of land.

In England there are similar institutions, noticeably the National Hospital for the Paralyzed and Crippled, in Queen's Square, Bloomsbury, with a convalescent home for epileptics. The home for epileptics at Mayhull, near Liverpool, has two buildings, one for males and the other for females, with 120 patients, and 41 acres of land. The Chalfont, St. Peters' Colony, near London, contains 135 acres of land, seven houses for the residence of patients, and workshops, recreation halls, farm houses, farm buildings, and accommodations for 160 patients. A very commendable institution is the Meath Home of Comforts, an institution started by the Countess of Meath, out of her own private funds, for female epileptics. It has accommodations for about 80, and with every

reasonable provision for medical treatment, occupation, education, etc. In our own country, Ohio was the first of the states to make provision for epileptics. This hospital was opened near Gallipolis, on the Ohio river, in 1893. It has capacity for 900 patients, and it has been doing excellent work under the administration of its accomplished superintendent, Dr. Rutter, and his able pathologist, Dr. Ohlmacher.

The next state to take up this important work was New York, and Dr. Frederick Peterson, of New York City, is entitled to great praise for his self-sacrificing devotions to the accomplishment of this great result. The institution, and a model it is in all respects, is the Craig Colony, located near the town of Mount Morris, on a tract of about 1,800 acres. They aim to accommodate 630 patients. There are some 400 in residence at present. This colony is under the able administration of Dr. William P. Spratling.

The Massachusetts Hospital for Epileptics was opened in 1898. It has about 200 patients and 237 acres of land. There is another epileptic institution in Massachusetts called the Hospital for Epileptic Children, which limits its privileges to children under fourteen years of age. They have 130 children and 200 acres of land, and Dr. Flood is doing a remarkably successful work there.

The State of Michigan has a home on the cottage plan for the treatment of feeble-minded and epileptics at La Peer.

New Jersey has purchased a site, and is actively engaged in founding a colony on the Craig Colony lines.

Texas has accepted the site of 640 acres for the establishment of a similar colony.

Pennsylvania has made no distinct provision for these invalids, but there are two excellent private corporations, one located near Westchester, in the eastern part of the state, with 110 acres of land, and the necessary buildings provided by three philanthropic individuals of Philadelphia, who have interested many others in Philadelphia, and the foundations have been made for what will doubtless be a very useful institution.

The other, in the western part of the state, under the German Lutherans, has a substantial foundation and bright prospects.

Maryland has a small but excellent institution at Port Deposit, which was started and was managed by an association known as the King's Daughters.

Missouri has passed an act and appropriated a small sum of money for the founding of a colony on the Craig plan.

At Emmaus, in Maryland, the German Evangelical Synod, started, in 1893, a colony on the Bethel plan, that now has about fifty patients and 240 acres of land.

California has at Eldridge, Sonoma county, an institution of which she may well be proud, the Home for the Care and Training of the Feeble-Minded. It is under the most efficient superintendency of Dr. A. E. Osborne, and has connected with it a department for epileptics. This institution has 1,800 acres of very valuable land. Dr. Osborne, whose long experience and successful care of the feeble-minded, makes his opinion of great value, thinks that there is no good reason for the separation of the feeble-minded from the epileptics. A personal visit to his institution last summer was a revelation. Certainly the work of combined treatment is there being carried on with a marvelous success.

The legislature of our own state has committed itself to the epileptic colony by appropriating a small sum of money for its beginning, under the direction of the Board of Public Charities, and the next legislature is in duty bound to make the necessary appropriation that will purchase the site and begin the erection of suitable buildings, and it is the duty of every member of this Society to see to it that provision is made on the same liberal scale as is found in the Bethel and Craig colonies. Provision should be made for at least 1,000 patients, and a site of at least 1,500 acres should be purchased in Northern Illinois, so as to be near the larger population. This site should be well watered, adapted to farming and gardening, and it should have upon it numerous buildings for the residences of the patients, for every possible

industrial pursuit, with barn buildings for cows and other stock, for the suitable administration buildings, a hospital, a laboratory, with a mortuary, and a complete outfit for the care, treatment and scientific study of the epileptics. Its organization should be free from politics, the board of managers should be selected equally from the two dominant political parties; its medical superintendent should be a man of administrative ability and of recognized skill in the treatment of nervous and mental diseases. Illinois, usually in the front rank of progress, is now well in the rear, and should as speedily as possible take that position in the great procession of progress to which she is entitled, by such liberal legislation as will establish an epileptic colony that will be a credit to her citizens and a benefit to these unfortunates.

DIAGNOSTIC SIGN IN SMALL-POX.*

BY J. C. SULLIVAN, M. D., CAIRO.

When I gave the title of my paper to our worthy secretary, neither Prof. Walsh of Philadelphia, nor our own J. Nevins Hyde, had then written their elaborate and scholarly papers on smallpox, leaving me but a single crumb of clinical import with which to regale you. That crumb is the pustular eruptions on the palms of the hands and the soles of the feet. There are but two diseases that produces this phenomena, namely, syphilis and smallpox. Pemphigus, eczema and hives affect the palms of the hands but not as pustules. This I consider a diagnostic sign of the greatest importance, and in which I place the utmost reliance, though Dr. Hyde makes but casual mention, whilst Dr. Walsh fails to mention it at all.

Southern Illinois, especially Carbon-dale, was afflicted with what was termed Cuban itch, but after having visited each patient I found this palmar sign and each one of them suffering with well defined cases of smallpox, except one case, yet other localities not visited claimed to have

a rash in no wise resembling either chicken-pox or smallpox.

In conversation with brother physicians, whose hairs were silvered with the frosts of many winters of experience, consequently whose opinions were entitled to the most respectful consideration, averred that, in their opinion, the present epidemic was not smallpox but some unknown or new disease, arguing that if smallpox could appear in so mild a form, why not some of the lesser skin eruptions appear in an aggravated one. True, the present epidemic, appearing, as it has, in its most atypical form, its low death rate (the reports sent to the State Board of Health, according to the May Journal, showing that out of 2,703 cases there were only 21 deaths since December 1, 1899), the patients being scarcely sick at all, secondary fever rarely occurring, and in fatal cases it was after the seventh day that the symptoms became severe, this would lead any physician not familiar with smallpox and not a sensational alarmist to hesitate before naming it so loathesome and contagious a disease as smallpox is generally supposed to be by the laity, hence I don't think any physician need feel the least humiliated in having made a mistaken diagnosis under such conditions. 'Tis only those who fail to remember that it is only human to err but devilish to persevere in their criticisms of a subject with which they are wholly unfamiliar.

When the cry of Cuban itch was again raised in the fall of 1899, and knowing how easy it is to be mistaken, I wrote Surgeon General Walter Wyman of the marine hospital service for such information as he could give me concerning Cuban itch. In reply he said: "I am aware of no disease called 'Cuban Itch' which could be mistaken for smallpox. There are several erythematous eruptions in Cuba, popularly called Cuban itch, but they are prickly heat or ringworm. True itch, that is, scabies, either does not exist or is very rare in the island of Cuba. The officers of this service who have lately returned from Cuba, report they have seen no cases." This with me settled the much-

* Read at the Fiftieth Annual Meeting of the Illinois State Medical Society, Springfield, May 16, 1900.

vaunted excuse for disputing expert testimony. Subsequent events proving its contagiousness, its rapid spread and finding this palmer sign (or trade mark) after the prodromal fever and backache, made it positive that the disease was smallpox, though atypical in almost every case. Hence I maintain that by these phenomena, fever, severe and constant backache, followed by pustular eruptions over the body and palms of the hands, smallpox may be diagnosed by any farm hand, any laborer or mechanic, with sufficient accuracy, to justify the isolation of the patient until the arrival of the proper authorities to take charge of the case.

OBSTRUCTIONS IN THE PATHWAY OF LEGITIMATE MEDICINE.*

BY J. H. MILLER, M. D., PANA.

It would be hard indeed to include in one short paper all the obstructions in the pathway of legitimate medicine, or even a considerable portion of them, therefore we shall endeavor to only take notice of a few of the obstacles that present themselves from time to time.

One of the oldest and most persistent forces that has arrayed itself against legitimate medicine is quackery in its different forms. There is some satisfaction in knowing that without the beginning there can be no counterfeit, yet this does not rid us of the counterfeit. The regular profession can congratulate itself that no monument has ever been erected to a quack, but, like the imposters in other walks of life, they have gone down dishonored and forgotten.

This was well exemplified in the life of Paracelsus, who, in his egotism, gathered together the works of Galen and publicly burned them, claiming that Galen did not know as much as his shoe lachets, yet, at the age of 48, this arch quack died a drunken, dissipated, friendless vagabond, leaving behind nothing save a tarnished, disreputable name.

Another obstruction, which is as plain as it is humiliating, is the ease with which legislation can be influenced for the protection of those engaged in irregular methods of practice. In fact, it appears to be next to the impossible to get a law strong enough to encompass them. To be sure, we must remember that a man or a set of men who are irregular in one way, will not hesitate to be irregular and dishonest in other ways; therefore the secret of their success is apparent. They simply go where an honest man cannot conscientiously follow.

When the spirit of commercialism takes precedence over professional dignity and professional attainment, it becomes a bar to legitimate medicine. Not but what the laborer is worthy his hire, but the physician, no matter how honest, who looks principally on the commercial side of his profession, and adds little or nothing to the same, is taking a step backward. Many of our law makers are lawyers by profession. Should one of their number openly defraud a client out of the small sum of five dollars he would be disbarred, yet these same law makers often assist in the passage of vicious legislation that allows the medical tyro to not only rob an unsuspecting public of their hard earned cash but of life itself.

There are many fads abroad in the land today and many of them would amuse were it not for the danger that lurks beneath the surface. We have the so-called Christian science, which is neither Christianity nor science, but built upon a tissue of falsehoods and misrepresentations. The disciples of this fad begin their nefarious work by putting into the mouths of their victims a lie and asking them to stand by it. Hand in hand with this fad Doweism makes its bow, and, like Rachel weeping for her children, refuses to be comforted for less than one million negotiable reasons, and weeps again because it failed to ask for more.

As a get-rich-quick concern and learn it while you wait, there is nothing that will compare favorably with osteopathy. As much may be said of many other fads and

*Read at the Fiftieth Annual Meeting of the Illinois State Medical Society, Springfield, May 15, 1900.

follies along this line too numerous to mention.

Like the house built upon the sands, they will sooner or later be swept away by the waves of enlightened public opinion. Inasmuch as these neophytes feed upon an unsuspecting public, our duty is plain. Education of the masses in the proper direction will eventually correct and stamp out these evils.

Better organization and good fellowship among the members of our profession, with a "long pull, a strong pull and a pull altogether" and the work will be accomplished.

SURGICAL INTROSPECTION.*

BY H. W. CHAPMAN, M. D., WHITE HALL.

On being requested by the secretary of the surgical section of this Society to prepare a paper for this occasion, the first thought presenting itself to my mind was: what can a man in my obscure position and with my limited opportunities and acquirements, present to this Society that will be useful, instructive, or entertaining; for unless a paper could fill at least one of these requirements, there would be no valid excuse for its production.

That it may fail in every one of these directions is extremely likely, but the subject should be so chosen, that success might be possible if it were properly handled. To attempt to instruct members of this Society in matters pertaining to surgery, is the province of a man of learning, ability and opportunity.

To be entertaining to such men and women as I see before me, calls for qualifications in an essayist such as all men do not possess. But it occurred to me that a thought might be presented even in an uncouth way, that could be taken up by other minds, caused to germinate, grow into a tree and bear fruit that would be beneficial to our fellow creatures. It is with this hope that I appear before you and crave your indulgence.

Surgical introspection. At certain times

of the year it is the custom of a man engaged in mercantile pursuits to take account of stock, in order to ascertain his amount of profit or loss, that he may know whether his business is such that it is desirable to continue in his present methods, or whether changes are necessary in order that the surplus may be on the right side of the ledger.

This habit would seem to be a good one for all men to cultivate, not always possibly to prove the ledger, but mayhap to ascertain if there be any good reason why he should continue to cumber the earth, for unless one is doing something to add to the general welfare, increasing the comfort and happiness of those about him, he has but scant excuse for continuing to be.

While this is true of all men, it is particularly applicable to medical men. There is no situation in life where one man is so completely at the mercy of another, as when the one man is a patient and the other a physician. Men wise in all other affairs of life fail in comprehending the delicacy of this position.

This being admitted, it behooves the physician to be exceedingly careful in all his acts to see that they square up by that ancient rule called Golden, "as ye would that men should do unto you, do ye even so unto them."

While this should be the guiding star of all medical practitioners, it applies with great force to the surgeon, because his work being active and aggressive, if it has greater possibilities for good, it has also greater possibilities for evil.

In the great strides made in operative surgery since the advent of anesthetics, antiseptis and asepsis, the improved technic of surgical maneuvers, no portion of the human anatomy is unassailable, and if the methods are correctly applied, the surgeon may wander at his own sweet will among the vitals of his fellow citizens.

The notion that a solution of continuity if aseptically acquired does not cause any harm; renders the surgeon not at all backward in causing such solution, until at the multiplicity of operations taking place today, one may well pause and contemplate.

*Read at the Fiftieth Annual Meeting of the Illinois State Medical Society, Springfield, May 18, 1900.

Step by step we have gone on removing one organ or part after another, and find the patient can still exist, until we can truly say "man wants but little here below," and we wonder how the race ever managed to worry along through all the past ages burdened with so many superfluous organs and appendages.

The first recorded case of anesthetic surgery, I have read, occurred many thousand years ago in the Garden of Eden, when "God caused a deep sleep to fall upon Adam" and exsected a rib, from which He a little later fashioned a woman, and right there occurred the future opportunity for the end of the nineteenth century surgeon.

That surgery has accomplished wonders for woman, is a fact known to everyone; that woman has done much for surgery, is equally a fact. We have seen that she originated in surgery, and is continually being improved upon by the same means.

Plastic operations for the repair of injuries incident to reproduction, involving no danger to life, and restoring parts to a normal condition from the pathological, confer an immense benefit uniformly, and there can be no question consequently as to their advisability and justification. It is in the mutilating procedures that we must look well to our motives and judgment.

It is here we must pause to consider the sum total of benefits conferred, the lives and homes made brighter and happier, the increase of days and usefulness, the diminished suffering and deferred death. Against this must we balance the lives shortened, the increased suffering and lessened ability to be useful and self-sustaining. A surgeon once said to me that he was doing Alexander's operation, and was anxious to have cases that he might complete a series of one hundred operations in order to report them.

One of the most pitiable nervous wrecks I have ever met with, was a young woman who had had her uterine appendages removed, for what cause I do not know, but she died a maniac soon after.

I have seen a woman with the day appointed for removal of an ovarian tumor, who had no tumor, and in whom a well-

fitted pessary correcting a retroversion, so far restored her nervous system that in a few weeks she was relieved of her flatulent distention, and returned home well and is still well after many years.

I have seen a woman condemned to ovariectomy, whose tumor proved to be a floating kidney. I have seen a woman whose abdomen had been opened for removal of an ovarian tumor which proved to be a descended spleen. I have seen a woman condemned to operation for pus tubes, in whom a curetting and gauze packing effected a permanent cure.

I have been told by the operator of his surprise after having removed supposed pus tubes by laparotomy, to find there was no pus in them. Clearly a curette, gauze pack and a little patience for nature's efforts, would have brought this case to a satisfactory termination. I have seen a laparotomy and myomectomy done on an otherwise healthy young woman for the removal of a uterine fibroma no larger than a hickory nut devoid of its hull. The same patient was condemned to abdominal hysterectomy one year later on the discovery of another similar growth.

I have seen the gravid uterus cut out of a woman for supposed fibroids. I was invited to witness the removal of the ovaries from a beautiful young woman for dysmenorrhoea, by a very young surgeon. I did not stay to witness the operation. I have seen a laparotomy for removal of an ovarian tumor, where the patient's condition was such from other disease, that but a short span of life remained under the most favorable conditions. She died two days later.

I have seen patients bearing the scar of laparotomy, with the tumor for whose removal it was made still in situ.

I have seen bloody mutilating operations done on an avowedly hopeless case, and the patient taken from the table in a condition to experience greater suffering and inconvenience than if left to nature.

I know of operations for appendicitis in which the appendix proved to be healthy, and in which there was no other pathological condition that could be relieved by the procedure.

I know of operations for appendicitis undertaken within the first twenty-four or forty-eight hours, in which the patient was dead inside of the next twenty-four hours.

I have seen a case prepared for operation for appendicitis, in which the diagnosis was corrected to pelvic cellulitis, and the patient made a good recovery without operative procedure.

I have read in a medical publication of a young surgeon in a small country town, who at the age of twenty-one years, and during his first year after graduation, had performed eight laparotomies, for what cause, and with what result was not stated.

I have read of ligated ureters, cut and torn bladders and intestines, fecal and other fistulae, abdominal hernias, instruments of various kinds, napkins, towels and sponges, left by operators in the abdominal cavity, with an occasional death on the table from the anesthetic or hemorrhage. None of these cases of which I have personal knowledge, occurred in the practice of obscure country doctors, but were in the cities, among men standing high in the profession, men having hospital appointments and most of them instructors, professors in medical colleges, engaged in the business of making doctors. I have seen uterine fibroids condemned to operation, which was declined; after being under observation for years, they seem to have made no growth, and have given no trouble.

Other similar cases I have been watching for years, the patient being entirely unaware of their existence, and her general condition being in no manner prejudiced thereby.

I have cases occurring near the menopause where the tumor is large, having one such under observation at this time, in which two years ago the patient requested hysterectomy. She has now seemingly completed the menopause, the hemorrhages have stopped and the tumor is reducing in size very markedly. She has lived this two years a comfort to her family, able to attend to her duties most of the time, and in spite of contracted kidney with albuminuria, polyuria and

tube casts, mitral insufficiency with cardiac hypertrophy, is now gaining in flesh and feelings of vigor. True, I have one less capital operation recorded in my case books; but the community has still one good useful citizen that might have been absent in Heaven for the last two years, and I am content.

Should it become necessary, a hysterectomy can be done at any time, and from the improvement in her general condition, it would seem that the chances of recovery would be greater now than at any former period. I have read of patients dying after operations for pus tubes; I have never seen a woman die of salpingitis or pyosalpinx; a judicious curetting with gauze packed snugly into the openings of the tubes and uterine cavity, involves comparatively little danger, will cause a temperature of 104° F. to fall to normal within six hours and remain there with entire relief from the excruciating pain.

It is true the disease will sometimes recur, but it is also true that it will again yield to similar treatment. There may be exceptions, but I have not met with them.

It is also true that there may at times for short periods be some pain and tenderness in the region of such a tube, but probably no more than would occur from an adhesion of the stump to some neighboring organ, or that caused by the possible ventral hernia; certainly not the suffering and inconvenience I saw in a woman who had undergone a radical operation for removal of pus tubes, and who three years after was still and had been ever since the operation, passing a strip of gauze eighteen inches in length into a fistulous opening in her abdomen every day, and wearing a large absorbent dressing to collect the pus discharged from it. It is needless to say, she still had her tubes. From my limited field of observation, it is probably safe to conclude that there are other occurrences similar to those above enumerated that have not come to my notice. Probably enough to make even a longer paper than this.

It is true, I have advised the removal of the tubes and ovaries from a woman,

whom experience has taught me could not be induced to refrain from poking dirty hairpins or catheters into her uterus, every time menstruation was delayed, and in such cases I really think that to be the proper procedure.

Previous to the pathology of appendicitis being understood, I think that we have all had cases that we now know to have been of that disease. I never saw one of them die, it may be true that there has been an element of luck in this. I have seen the pus evacuated spontaneously through the bowels several times, through the bladder once in a recurrent case, and several times, through an incision in the abdominal walls, where it was evident that pus was about ready to evacuate itself. In all these cases recovery took place, and many of them have been under observation for years with no indications of return. This is notably true of the recurrent case evacuated through the bladder. I treated this patient through a number of attacks during a period of several years, when finally during another, he became tired of me and changed doctors; the new attendant on taking hold, regarded the tumor as evidence of fecal obstruction, so he gave him a half teacup full of castor oil; that night the contents of the tumor was discharged through the bladder, and the doctor said that was "just what he had expected it to do." The patient has always been confident the dose of oil cured him.

I presume that the peristaltic action induced by the oil hastened the rupture. This man has had no return of this trouble since, a period of nearly ten years. I have seen a few cases moribund from general peritonitis, whose history would seem to make it probable, were originally appendicitis: In the few cases where I have operated, the diagnosis has been sustained and the patients made uneventful recoveries. With this experience I can but regard the advice to operate within the first forty-eight hours, or to operate in every case, with much distrust. I cannot even sanction the proposition to remove the appendix from every one in infancy, until after the lapse of time the race shall

be devoid of this organ, because I have in mind a procedure introduced many years ago by a man named Abraham, (since deceased) whose male descendants have vigorously adhered to the custom to the present day. I allude to amputation of the prepuce.

After all the years that this custom has been in vogue with this people the last one of this man's relatives I had the pleasure of ushering into this mundane sphere, made his advent with as luxuriant a prepuce as one could wish to see, and eight days after I had the honor of holding the little fellow on my lap while the Rabbi proceeded to rid him of his useless appendage. Which performance he assured me was a sanitary procedure entirely, but the Hebrew recitations preceding, accompanying and following, which he admitted were taken from the writings of Moses, he could not account for in the same way.

I am not one to believe that the surgeon should be separate from the physician; but that he should first be a physician with experience. No man is so competent to cut down on a pathological condition, as the man who is able to diagnose that condition.

No man is competent to declare an operation necessary, until he has by experience, in addition to knowledge, become capable of appreciating the whole physical condition of his patient.

It requires much more to constitute a surgeon, than the ability to make wounds without causing the patient's death every time. The patient has a right to expect that his condition will be improved in consequence of the operation.

What then, are the conclusions reached from this introspection or stock taking? First, that no mutilating operation should be undertaken without weighing well all the possible advantages, as well as all possible disadvantages; balancing the one against the other and finding the preponderance in favor of the former.

Secondly, no operation involving danger to life, should be undertaken unless the disease is placing the life in greater jeopardy than would the operation. And lastly, "as ye would that men should do unto you, do ye even so unto them."

The Illinois Medical Journal

PUBLISHED MONTHLY.

Official Organ of the Illinois State Medical Society.

Committee on Publication:

E. W. WEIS, M. D., Chairman, Ottawa.
G. N. KREIDER, M. D., Springfield.
E. J. BROWN, M. D., Decatur.

Springfield, Ill., May, 1901.

JUDICIAL COUNCIL.

On the second page we print a half tone cut of the members of the Judicial Council. By the action of the Society last year important duties were given to the members of the Council. They have been zealous in performing these duties and will have an important report to make at the annual meeting.

MEETING NOTES.

A special rate of one and one-third fare from all points in Illinois for the round trip has been granted by the railroads to all persons attending the meeting at Peoria. A certificate must be obtained from the local ticket agent at the starting point, and if more than one road is traversed a certificate must be obtained from each. On reaching Peoria turn the certificate over to the Secretary. The program will be found on pages 584-92. The full program will be distributed at the meeting.

VERMILION COUNTY SOCIETY.

One of the most active organizations in the State is the Vermilion County Society, which is growing rapidly in numbers, influence and good works. This Society, at its last meeting, contributed \$15.00 from its treasury to the funds of the Legislative Committee. At this same meeting eight persons were elected members and six new names were proposed for membership. Seventeen persons have joined the Society since the beginning of the year. Other county Societies might profit by the example, and for this reason we call particu-

lar attention to its work. Only one criticism can be made of this Society. All its members should also become members of the Illinois State Medical Society. K.

MEMBERSHIP OF THE SOCIETY.

We take pleasure and pride in presenting this month an alphabetical list of the members of the Society, which is the only complete roster published since the year 1898. Members possessing the old transactions will be surprised to observe the unprecedented growth of the Society. At the time of closing the forms the membership has reached 950, and accessions are so numerous that doubtless 1,200 will be enrolled by the close of the annual meeting. This gratifying increase should and we believe will stimulate the members to labor for still greater things in the future. The Illinois State Medical Society can and should have a membership of 2,000 on the first of June, 1902. Any errors, omissions or mistakes in spelling of names should be pointed out at once. About 30 names were received too late for insertion in the list.

K.

STATE BOARD OF HEALTH.

Governor Yates made the following appointments on the State Board of Health, May 3d:

George W. Webster of Chicago to succeed M. Meyerovitz, resigned; C. B. Johnson of Champaign, re-appointed; J. C. Sullivan of Cairo, re-appointed; W. Harrison Hipp of Chicago.

The following is the personnel of the Board at the present time.

J. A. Egan, Chicago; Geo. W. Webster, Chicago; J. C. Sullivan, Cairo; C. B. Johnson, Champaign; W. Harrison Hipp, Chicago (eclectic); W. O. Forbes, Chicago (homeopath); Florence W. Hunt, Chicago.

A NOTABLE VICTORY.

Four bills of interest to the medical profession were passed at the 42d session of the General Assembly which has just adjourned. The most important is an act requiring reports of births and deaths and re-

cording of the same, regulating the interment or other disposal of dead bodies and prescribing a penalty for non-compliance with its provisions. After January, 1902, when this law goes into effect, Illinois will have an accurate registration of births and deaths. The efficiency and strength of the Illinois State Medical Society was most strikingly shown when opposition was developed to the passage of the bill. The chairman of the Senate Judiciary Committee, to which it was referred, was inimical and reported it out unfavorably. Our Legislative Committee then took hold of the matter and had the Senators besieged with letters and telegrams from members of this Society in all parts of the State. As a result of this campaign it passed the Senate. A similar campaign was inaugurated in the House, but in the face of a lively opposition the bill was passed. Had not the organization of the Illinois State Medical Society been perfect and its Legislative Committee active, failure instead of success would now be recorded. The thanks of the profession are due to Senator Stubblefield of McLean and Rep. Dr. J. A. Wheeler of Sangamon for their active efforts in behalf of this bill.

The Legislative Committee and the physicians who came promptly to their aid by letter and telegram deserve the hearty thanks and commendation of the entire medical profession and the people of the State. For the information of the profession the full text of the bill will be printed in the next issue. A synopsis of the bill before its amendment will be found on pages 466-467 of the March issue of this Journal. K.

THE PEORIA MEETING.

The next annual meeting promises to be the largest and most interesting held by the Society since its organization. From reports which reach the officers it can safely be promised that at least 600 practitioners of Illinois will be in attendance. Several Societies have arranged to attend in a body. Unusual preparations for entertainment have been made by the local com-

mittee and the scientific program is filled to repletion. The preliminary meeting on Monday afternoon will be in charge of the Legislative Committee and should not be forgotten. Dr. Norbury, editor of *The Fortnightly*, thus refers to the meeting in his last issue:

The next meeting of the Illinois State Medical Society will be held in Peoria, May 21, 22, 23. It promises to be in every way a good, rousing meeting, as never before in the history of the Society has there been such a growth in membership as in the past year. It is indicative of two things: one is that physicians are recognizing that in union there is strength, and the other consideration is the growing desire on the part of the profession to know more, to be up with the times and to be more fraternal. The time has come in matters of legislation when, if the medical profession wish to carry reforms, they must work as a unit, for it is certainly true that the quack element work in unison in the opposition. Again, it is believed the ordinary, every-day politician, such as make up the great majority of the legislature, is a sensible man, a man who recognizes merit where he sees it and has respect for his physician friends. He is anxious to do his bidding, and will, if he is only asked in a friendly way on the part of the combined medical profession of his district. It is said that it behooves physicians on the part of selfishness to be a society man, but we hope none enter for this sole purpose, for if they do, they had better withdraw; they will not be at home in the company of medical society men. The Illinois State Medical Society is doing good work, and this year's meeting promises to be an inspiration. We hope it will be, in every sense of the word. The preliminary programme will be issued soon. Let every Illinois physician join the forward movement, which is making the State Society such a power for good in the State. Be on hand at Peoria. K.

CALL FOR PRELIMINARY MEETING.

The preliminary meeting appeals to every member of the Society who is interested in the material welfare of the profession. All physicians are invited to attend. Officers of county societies and especially members of their committees on medical legislation should be present. The call for the meeting follows:

Jacksonville, Ill., April 25, 1901.

Dear Doctor:—The President of the Illinois State Medical Society has appointed the Legislative Committee to have charge of a preliminary meeting, to be held in Peoria on Monday afternoon, May 20th, for the discussion of any and all questions for the good of the profession.

It will be especially appropriate at this time

to discuss all questions relating to Medical Legislation; the health laws of the State and municipalities; the Medical Practice act, and desirable changes in it; the reorganization of local, state and national medical societies in accordance with modern and progressive plans; defining the status of membership in local, state and national societies; the composition of the nominating committee of the State Society; the duties of the judicial council and of the registration committee of the State Society; the relation of medical societies to the local, state and national government, and the formation of a Protective League.

These are some of the questions which it will be proper to discuss at this informal meeting. This meeting will be allowed to make a report to the State Society on any subjects on which it may be desirable to take action.

The Legislative Committee would be glad to have the benefit of your presence and co-operation in this preliminary meeting.

Respectfully,

(Signed)

Carl E. Black, Chairman,
E. Fletcher Ingals,
J. A. Egan,

Committee.

Correspondence.

That Arthur R. Reynolds has reported in the State Bulletin, from the Chicago Department of Health, that the city of Chicago is the healthiest large city in the world, is an item of interest to those of us who have for many years been laboring to promote the health of the State in which this wonderful city is located.

It is an instance of encouragement that our State, so great in many other respects, may be made the healthiest in the Union.

For many years the State of Illinois was foremost in the regulation of her physicians in the practice and in the perfection of her sanitary laws and work, but because the true spirit of them were not duly appreciated we had, until very recently, fallen behind.

So much were we once in the van that our laws were copied and our methods sought, and the president and secretary of our Board of Health were treated with deference in all medical circles, both at home and abroad, and the standard of medical education everywhere in this country was raised to meet the demands and requirements of that set up by our Board.

Our laws provided for progressive work in that in Sec. 2 of the law creating the Board of Health and defining its powers and authorities, it is said, "They shall have charge of all matters pertaining to quarantine, and shall have authority to make such rules and regulations and such sanitary investigations as they may from time to time deem necessary for the preservation or improvement of public health, etc.," and in Sec. 3, "They shall make up such forms and recommend such legislation as shall be deemed necessary for the thorough registration of vital and mortuary statistics, etc." Implying that as fast as the people became inured to needful restrictions and compulsion that the Board might increase the demand for more efficient statistics within bounds and ask for needed legislation.

This idea of progressive efficiency of laws and rules have not quite been appreciated, as I think, by the appointing power not duly comprehending the situation, in that he has too often appointed physicians merely as such and not from among those who were active in the professional progressive work of instigating and promoting a system of state medicine and sanitation. Those who have been active in this work are of the active members of the Illinois State Medical Society, where the conception of state medicine and sanitation had its birth, and are imbued with this progressive idea, and their councils should have been sought, for the Illinois State Medical Society, through the activity of such members, knows more about promoting the health of the citizens of the State than governors or legislators. It is conceded that when these laws were first enacted they were thought to be comprehensive, but in view of the progress made in the knowledge of sanitary matters since by the profession, they have been too long construed to embrace only the most ordinary diseases and conditions, such as scarlatina, diphtheria, smallpox, measles and their known causes, together with impure food and contaminated water.

As now understood, however, mortuary,

sanitary and vital statistics should include all that pertains to tuberculosis, syphilis, alcoholism, gonorrhea, malaria, etc., and whatever may be conceived to be a remote or proximate cause in the production of any one or all of the diseases, and whatever our increased knowledge may bring with-in this liberal purview.

True, this is a somewhat wider view than has been heretofore taken, but the idea is entirely tenable and the dissideration possible to accomplish.

Some of these diseases and their causes and coincident conditions, short of recognized disease, tend to impair the intellectual development and powers of resistance in debility and degeneracy beyond all question through inheritance and widen their baneful influences in a well known geometrical proposition by this fact, so that the influence of a given case is far reaching.

To detail instances illustrative of what is here meant would exceed the limits of a suggestive correspondence, and farther, the matter is too patent to most all that are at all cognizant of much that causes disease and mental degeneracy, imbecility, crime and insanity to need more explicit reference.

If a system of statistics as I have suggested be perfected and some of the data and conclusions be disseminated more widely, the public will ere long become informed enough to admit of needed legislation such as will at least for a time put our State of Illinois again in the van and the healthiest in the Union.

A. C. Corr.

East St. Louis.

SMALLPOX AND THE LAW.

Recently the Chicago press, secular as well as medical, has contained quotations from Judge Lorin C. Collins regarding the arrest and attention of a patient suffering from smallpox. The impression given by these quotations were that all arrests and attention of a smallpox patient was without legal support.

The chairman of the committee on medical legislation of the Illinois State Medical Society addressed the following letter to Judge Collins, which we are very glad to print, accompanied, as it is, by Judge Collins' carefully prepared reply:

March 19, 1901.

Judge Lorin C. Collins, 112 Dearborn St., Chicago, Ill.:

Dear Sir:—Being peculiarly interested as chairman of the committee on medical legislation of the Illinois State Medical Society, I take the liberty of addressing you regarding some remarks noticed in the last Journal of the American Medical Association, purporting to be quoted from your address on the "Control of the Veneral Diseases by Legislative Enactment," as follows:

"If a man in the most virulent and dangerous stage of smallpox should walk down Clark street there is no power in Illinois by which that man can be taken and carried forcibly to a place where he can be isolated. * * * The British law contains no provision whereby a person suffering from smallpox, for instance, can be taken by force to a hospital for treatment. A person may be fined for spreading contagion; he may be imprisoned if the fine is not paid, but he considers that of no value whatever. * * * Chicago could not pass an ordinance that would be efficacious. Power has not been granted the city as yet by the state, and it would be necessary to have legislation on this subject by the General Assembly."

This statement seems so much at variance with the practice in our cities and villages, as regards smallpox, that I am constrained to write you for further explanation. Paragraphs 75, 76, 77 and 78, of Section 62, Chapter 24, of the Revised Statutes of Illinois, give cities and villages power to "do all acts and make all regulations which may be necessary or expedient for the protection of health or the suppression of disease."

Concerning the force and effect of this power, the secretary of the State Board of

Health has called my attention to the following decision of the Supreme Court of Illinois, as decided in the case of *Mason et al versus The City of Shawneetown* (77 Ill. 533), as follows:

"When an incorporated town or city has been invested with power to pass an ordinance by the legislature, for the government or the welfare of the municipality an ordinance enacted by the legislative branch of the corporation has the same force and effect of a law passed by the legislature, and cannot be regarded otherwise than as a law of and within the corporation. An ordinance is the law of the inhabitants of the municipality."

Judge Scott, in the case of the town of Lake View versus Rose Hill Cemetery, defines the police power of the municipality to be "that inherent and plenary power in the state which enables it to prohibit all things hurtful to the comfort, safety and welfare of the society." The power of "over-ruling necessity," which Judge Dillon says "is the authority to suppress nuisances, preserve health, prevent fires," etc., etc., seems to be of importance in this connection.

Several judges have said that the principal purpose of local government is to preserve the health and safety of the inhabitants. Now, my dear sir, all this is exceedingly familiar to you, and I only quote it that I may learn where the error of my information is. I am anxious to know why Chapter 24, Section 62, of the Revised Statutes, does not give ample authority to corporations. I have already had a number of letters from physicians regarding your remarks, and am exceedingly anxious to be in a position to answer intelligently. If you will do me the favor of giving me a little further explanation, I will be greatly obliged, as will also the Society which I represent.

If your opinion had been confined to venereal diseases, which was the title of your presentation, I can well see that public sentiment would not sustain the arrest of such person, but I know, from practical experience, that if there was no other law

public sentiment would fully sustain the police power in arresting a smallpox patient.

Hoping to have the pleasure of hearing from you on this point, and with the highest esteem for your opinion, I am

Very respectfully,

Carl E. Black,

Chairman.

Judge Collins replies as follows:

Chicago, Ill., March 25, 1901.

Carl E. Black, M. D., Jacksonville, Ill.:

Dear Sir:—Your favor of March 19th received.

I take pleasure in giving you my ideas more fully, and perhaps more clearly, than I am quoted in the few remarks that I made before the Physicians' Club, in regard to the laws of this State for the protection of the community from contagious and infectious diseases.

There is ample power under paragraphs 75, 76, 77 and 78, of Section 62, Chapter 24, of the Revised Statutes, to provide for the general regulation of persons afflicted, and for the suppression of disease, by fine. The ordinances of the city of Chicago make such conduct as I have mentioned a misdemeanor, but it would be necessary to arrest the person for violation of the ordinance, take him into court, try him and convict him, and on the payment of the fine, I am of the opinion, that having paid his fine, he would be at liberty to again start out, and all the city could do would be to re-arrest him. In case he did not pay the fine, he could be sent to the bridge-well and confined there with the other inmates, or in smallpox quarters, if they have them, until his fine is worked out.

The point that I was seeking to make is, that we are such sticklers, in this State, for personal liberty, that there is no summary process known, and I spent such time as I could, and made such investigation as was possible for me to make of the British laws for the suppression of disease and as to health, and could not find that they were much in advance of us.

What you desire is the right to arrest on sight and incarcerate in an isolated

place any person spreading contagion or infection. Where is your court for such purpose? It is done by might, but not by right and law. Take the case of an insane person. An insane man upon the street must be taken to the Detention Hospital, kept there, and given all the formalities of a trial, before society can be protected against his acts, and in such cases as that of Frank Collier, we know the law as it exists, is absolutely inefficient. If a person were willing to go, and most people will readily yield when a show of authority is made, there would be no difficulty. But take this case as an illustration. Suppose I am walking the streets of Chicago, and a man accuses me of having a contagious or infectious condition of the body which jeopardizes the public health. Am I, without a trial before a jury of twelve men, to be deprived of my liberty and placed among those that are known to be in a contagious or infectious condition?

There should be established in all the large cities of this State a court of Public Health; a skillful physician should always be in attendance thereon; all officers of conservators of the peace should be authorized, on probable cause, to arrest any person and take him before that court; a trial should there be had before a jury of twelve men, without the formality of legal pleadings, and such an order entered by the court as the jury determined was proper.

It will not do to permit the wholesale arrest of citizens on the supposition that they are affected with either a contagious or infectious condition, dangerous to the public health, in the present state of public diagnosis. Take the venereal condition represented by syphilis. I think you would doubt the propriety of allowing police officers to arrest either man or woman by such surface indications as appear upon the face or exposed portions of the body, but that contamination should be prevented, you and I would not disagree.

In short, it is my opinion that while the law will permit of fines being imposed, there is no law in this State at the present time that permits of the arrest and isola-

tion of any person, except after trial before a duly constituted tribunal and before a jury of twelve men, if the accused demands it. If I am right in this, our laws are very inefficient, and they should be remedied.

Having perhaps expressed myself more fully and clearly, I will be very glad to hear from you further in this matter.

Yours, very sincerely,

Lorin C. Collins.

County and District Societies.

At the meeting of the Pike County Medical Society at Pittsfield, April 18, 1901, Dr. Benton B. Dunn was elected to membership in the Society.

The officers were re-elected for the ensuing year.

The meetings of the Society will be held quarterly, at Pittsfield, beginning July, 1901, and will be held on the fourth Thursday.

Dr. Geo. A. Humpert read an entertaining paper, entitled "Professional Capital."

There were some interesting reports and discussions by Dr. G. U. McComas, Dr. C. E. Beavers and others.

R. H. Main, Secretary.

The Champaign County Medical Society gave a complimentary jubilee banquet to Drs. S. S. Salisbury and C. H. Mills, at the Beardsley Hotel, April 11th. After the refreshments were served the following toasts were offered, Dr. J. D. Mandeville acting as master:

Reminiscences of Fifty Year's Practice—Samuel S. Salisbury.

The Doctor in Politics—James M. Bartholow.
The Rip VanWinkle Doctor—John Laughlin.

The Doctor in Art—William F. Burres.
The Medical Department of the University of Illinois—Thomas J. Burrill.

The Ideal Physician of the Twentieth Century—G. N. Kreider.

Asepsis Abroad—William K. Newcomb.
The Story of Two Village Doctors—Charles B. Johnson.

The regular physicians of Livingston county met in Pontiac, April 25th, and organized a county society. A constitution, by-laws and rules of order were adopted. The following officers were elected for the ensuing year: J. J. Pearson of Pontiac, president; Charles L. Hamilton of Dwight, vice president, and John Ross of Pontiac, secretary and treasurer. The Society starts out with eighteen members, and promises to become one of the best county so-

cieties of the state. The membership on the day of organization is as follows: J. J. Stites, Chas. L. Hamilton, L. J. Wisman, H. G. Ohls, E. H. Fitzpatrick, J. A. Marshall, A. B. Middleton, W. L. Rabe, J. J. Pearson, U. M. Daley, Milton Palm, T. W. Jones, G. C. Lewis, C. W. Talbott, J. W. Zinn, E. E. McCoy, N. M. Otis and John Ross.

Dr. J. W. Pettit of Ottawa, was present by invitation and assisted at the organization.

John Ross, Sec.

The Vermilion County Medical Society met Friday evening, April 12th, in the City Hall. The following physicians were elected to membership: S. R. Wilson of Rossville, G. H. Post of Fithian, J. L. Finley of Collison, A. H. Kimbrough, S. W. Jones, A. L. Fox, W. H. Paul of Danville and G. W. Howard of Alvin.

The following names were presented for membership: J. W. Slack of Bismarck, F. M. Mason of Rossville, W. H. Boone of Sidell, E. I. Berninger of Oakwood, E. L. Hardman of Allerton and F. E. Saunders of Perryville.

Dr. H. F. Becker read a very interesting and highly appreciated paper on the tubercle bacilli, with an interesting demonstration of same.

A committee, consisting of Drs. Becker, Johnston, Guy, Clark and Fairhall, was appointed by the president to arrange for the entertainment of the Tri-County Medical Society, which meets in Danville the second Tuesday in June.

Before adjourning the secretary was instructed to forward to Dr. Black \$15.00 for the use of the Committee on Medical Legislation.

No farther business, the Society adjourned to the May meeting.

E. E. Clark, Secretary.

The McLean County Medical Society celebrated its 47th anniversary with a banquet at Bloomington on the evening of April 4th. The regular meeting was held in the afternoon, when Dr. J. Little read a very interesting paper on reminiscences of an army surgeon in the war of the Rebellion. Dr. C. E. Chapin was re-elected president and Dr. F. C. Vandervort secretary. Dr. E. S. Reedy was elected treasurer and Dr. W. R. Shinn vice president. Dr. J. Y. Bonnett, Dr. G. D. Elder and Dr. J. Whitefield Smith board of censors. At 7 o'clock in the evening the doctors and their wives and friends to the number of 80 assembled at Cooper hall and sat down to an elaborate course of supper served by Mrs. Cooper in her usual fine style. After doing ample justice to the repast the people settled themselves to listen to the following program of toasts. The venerable Dr. Lee Smith presided with dignity and made some bright hits in introducing the speakers. Vocal solo, Miss Edna Carr. The Medical Profession, Dr. J. L. White. Our Society, Dr. C. E. Chapin. The Old Doctor, Dr. Wm. Hill. The New Doctor, Dr. E. E. Sargent. The Doctor as a Citizen, Dr. J. B. Taylor. The Hippocratic Oath, Dr. J. Whitefield Smith. The Doctor at Home, Dr. Rhoda Galoway Yolton. Much praise is due the com-

mittee for the excellent work done in getting up this program. Everybody had a good time and want to do it some more.

F. C. Vandervort, Secretary.

DeWitt County Medical Society convened in the county court room, April 9th, at 1 o'clock P. M. It being the annual meeting, the Society on motion proceeded to elect officers for the ensuing year, with the following result:

Dr. A. E. Campbell, president, Clinton.

Dr. C. C. McMackin, vice-president, Weldon.

Dr. J. H. Tyler, secretary and treasurer, Clinton.

The president appointed Drs. D. W. Edmiston, Fullenwider and Charlston as censors, which appointment was approved by the Society. When reports were called for, the censors, to whom a certain letter written by a physician of Clinton seemingly for the purpose of soliciting patronage, had been referred, made their report, exonerating the Doctor from all intention of violating the code of ethics, which report was adopted by the Society.

Dr. W. H. Kirby reported a case of abdominal injury without any external marks perceptible, which proved fatal within twenty-four hours. The doctor also cautioned physicians present to exercise great care in their examination of abdominal injuries prior to announcing their diagnosis and prognosis.

Dr. J. M. Wilcox reported a case of uremic poisoning, complicated with senile gangrene. When called, the patient was in a comatose condition but after appropriate treatment excretions became active, the coma subsided and then an excruciating pain was experienced in the heels, terminating in ulcers and sloughing which healed slowly.

Dr. A. E. Campbell read a paper on diseases arising from a defective excretion from kidneys, not organically affected, and stated the kidneys need purging as well as the bowels in a majority of maladies. The paper called forth quite a lengthy discussion in which nearly all present participated, the most of whom regarded the alkaline diuretics the most effective where excessive uric acid predominates.

The president appointed Drs. D. W. Edmiston, Kirby and Ballard, delegates to the state association to be held at Peoria in May, 1901.

On motion the Society adjourned.

John H. Tyler, Secretary.

The semi-annual session of the Macoupin County Medical Society was held in the Masonic hall, Shipman, Ill., April 23, 1901, and was called to order by President Barto of Plainview.

The following members answered to their names:

J. R. Ash, Brighton; F. C. Barto, Plainview; L. H. Corr, J. S. Collins, J. P. Matthews, J. Palmer Matthews, from Carlinville; F. H. Charles and W. L. Penniman from Shipman; A. G. Kinkead and H. W. Gobble of Greenfield.

The minutes of the preceding meeting were read and approved.

The treasurer reported:

Balance on hand from last report.....	\$6 30
Received initiation fee from Dr. Trott, Virden.....	1 00

Paid for stationary and printing.....\$1 25

\$7 30

Balance on hand.....\$6 05

Signed J. Palmer Matthews,

Treasurer.

The name of Dr. Trott of Virden was proposed for membership by Dr. Bartlett of Virden.

On motion the treasurer cast the ballot of the Society for Dr. Trott and he was thereupon declared a member.

The name of Dr. W. J. Donohu of Plainview was proposed for membership by Dr. Penniman and on being reported favorably the secretary cast the ballot of the Society and the doctor was declared a member.

The censors reported the next meeting would be held at Greenfield on the third Tuesday in October, 1901.

The Essayists, Dr. Barto, Plainview; Dr. L. H. Corr, Carlinville; Dr. H. W. Gobble, Greenfield.

The committees report was on motion adopted.

The committee on the Good of the Profession had the secretary distribute a pamphlet containing all the laws of the Illinois legislature affecting the profession which were about to be passed at the present session. Sent by Dr. Carl Black, secretary of a committee on legislation of the State Medical Society.

On motion of J. R. Ash, it was declared the sense of this meeting that, the State Laws in regard to the Medical Practice Act be abolished, and a national law govern and to be the same in substance. That the different colleges be required to compel a certain number of years attendance and the other usual requirements and at the expiration of the term to examine the students and if they pass give them a certificate entitling them to appear before a government board of examiners and upon passing such board to receive a certificate entitling them to practice anywhere under the flag, and Secretary Weis of the State Society be notified.

The following communication was read:

Secretary Macoupin County Medical Association, Shipman, Ill. Dear Sir:—I regret very much being deprived the pleasure of meeting with you today. I had planned to be present, but am unavoidably detained. Appreciating as I do the kindness of some of the members I feel anything of interest that I might add to the general fund of information should be imparted, though it might be small.

Wishing you a profitable session, I am

Fraternally yours,

T. A. Horine.

The Society then adjourned for dinner, and after enjoying the hospitality of the local fraternity, reconvened at 2 p. m. to hear two papers discussed.

Dr. Ash's subject was:

Conditions favoring the growth of the "Pulmonary Germs in the pulmonary cavity." We as physicians are responsible for the spread of the white plague. We all know the physiology of the nasal cavity, that of rendering the air moist and warm and filtered of germs and dust before it enters the lungs.

When the schneiderian membrane is dis-

eased it is the focus for the infection of the bacillus tuberculosis.

The disease extends downward into the tubes widening the field for infection.

Indiscriminate cauterization is to be condemned, but when there is a spur or hypertrophy, a cautery will restore the nares to the performance of their physiological function. Lagrippe awakens latent diseases of accessory cavities and weakens our nerves, preparing us for an invasion of tuberculosis. Inheritance has much to do with conditions of tissues of nasal cavities and lungs.

The paper was accepted and a general discussion followed.

Dr. Palmer Matthews spoke of a case of cerebro-spinal meningitis traced to infection of meninges through the ethmoidal cells from a case of atrophic rhinitis.

Dr. Corr spoke of the use of chromic acid as a satisfactory cautery.

Dr. J. P. Matthews spoke of the inherited diathesis for uric acid diseases or tubercular infection. He declared them to be diametrically opposite and a subject of one will not have the other.

Dr. Barto spoke of the use of the quill in treatment and said great benefit can be derived by exercising the lungs with forceful prolonged expiratory effort through a small quill.

Dr. Ash in closing said he doubted the propriety of sending patients away from home, because of home sickness and lack of comforts that are found in an Illinois home.

Dr. L. H. Corr read a paper on massage as a therapeutic measure and of the masseur and masseuse in relation to the profession.

After a general discussion the doctor was requested to furnish a synopsis for publication in the State Medical Journal.

The Society on motion adjourned.

J. Palmer Matthews, Sec.

Meeting of the Chicago Pathological Society, Monday, April 8, 1901. Dr. L. Hektoen, President.

Dr. Bertha E. Bush reported a case of varicose veins of the right upper extremity in a child. This report places upon record a case of developmental varix, in a young child, the process effecting the anterior superficial veins of the entire right hand, arm and shoulder. Numerous saccular dilatations occur just beneath the skin, those at the inner end of the clavicle and in the palm of the hand being the most conspicuous. Skigraphs show deformity of the right metacarpal bones, and generally diminished growth of the arm and hand. There is no pulsation or edema, and no history of hemorrhage. Noteworthy points in the case are: 1. The congenital origin; 2. The region involved; 3. The obscure etiology; 4. The scarcity of literature.

Dr. H. T. Ricketts presented a conderation of blastomycetic (oidiomycetic) dermatitis and its organisms, with demonstrations.

Through courtesies from Professors Hyde, Montgomery and Hektoen, I have studied the pathological and mycological features of ten new cases of blastomycetic (oidiomycetic) dermatitis observed during the last eighteen

months, mostly in the clinic of Profs. Hyde and Montgomery. The work was done in the pathological laboratory of Rush Medical college.

There is a uniform clinical history in all cases; the process beginning as a pustule, which becomes a larger ulcer, the surface later being covered with coarse papillae bathed in pus. A reddish areola containing milium abscesses surrounds the verrucose tissue; the center of the lesion circumscribes as the periphery extends.

The histological features are uniform; carcinomatoid proliferation, and leukocytic infiltration of the epithelium, intra-epithelial abscesses, premature and abnormal cornification, peculiar retrogressive epithelial changes and epithelial giant cells, and in the corium, dense leukocytic and plasma-cell infiltration, fixed tissue proliferation, subcutaneous abscesses, giant cells and tubercles, resembling those of tuberculosis but being less typical in the interrelationship of cells and showing less advanced regressive changes. Plasma-cells seek the periphery of the process. Apparently there is an eosinophilous type of the disease, which, in the cases studied, is associated with a mould-fungus form of the parasite, and very large papillae. Russell's fuchsin bodies are found in plasma-cells and intercellular spaces. There is a close relationship between plasma-cells and the formation of a peripheral protective zone of fibrous tissue. They do not appear to become fibroblasts, but to undergo a gradual disintegration as provender for forming fibrous tissue. Mast-cells exist in large numbers, and are classified as 1, leukocytic; 2, connective tissue cell type; 3, those possessing halos, and 4, the plasma-mast-cell type. In the tissue the organisms are found singly, in budding pairs and in groups, in intraepithelial and subcutaneous abscesses, free between healthy rete cells, in giant cells, and in the granulation tissue of the corium.

From seven cases the organisms have been cultivated. They fall into three groups: 1, the yeast-like, resembling those of Hektoen, Hessler, Busse and Curtis, 2, the oidium-like; 3, the mould-fungus type, resembling the organism isolated by Ophuls and Moffit from the protozoic (?) disease. Study shows that all these have common generic properties, and are separated only by specific characteristics which are more or less variable. In accordance with pre-existing nomenclature they all belong to the genus *oidium*. "*Blastomyces*" is considered not sufficiently inclusive.

Pure cultures inoculated into animals produce local abscesses, septicemia, or if injected into veins, mycotic nodules and consolidation in the lungs.

The various methods of proliferation in cultures are, germination, lateral conidia, terminal spore-groups, abjunction of mycelial segments, aerial conidium-bearing hyphae (in the mould-fungus), and questionable endogenous spore-formation.

Of many inoculations of tissue from man into guinea pigs, none have resulted in tuberculosis. A study of Busse's case of "*Saccharomycosis hominis*," of the protozoic (?) disease

of Wernicke, Gilchrist, Ophuls and Moffit, and others, and of Blastomycetic dermatitis, together with the fungi concerned in all, affords convincing evidence that the three are closely related processes, caused by similar organisms; the protozoic (?) disease and *Saccharomycosis hominis* (Busse) are examples of the generalised infection, while Blastomycetic dermatitis (Gilchrist) is a local manifestation of the disease.

The term *Oidiomycosis* is suggested as a name for the combined manifestations.

Cultures, and gross and microscopic specimens of tissues were exhibited.

Discussion of paper by Dr. H. T. Ricketts:

Dr. Maximilian Herzog: If so many varieties of organisms are found in cases of clinical blastomycetic dermatitis, they cannot be a single cause.

Dr. Coates objected to the term *oidiomycosis* as liable to introduce confusion.

Dr. Ricketts in closing said he did not insist on the use of the term *oidiomycosis*. He considered the protozoan disease as due to an organism very closely related to the ones under consideration.

Dr. L. M. Loeb reported two cases of infection by the bacillus *serogenes capsulatus*.

1. A compound fracture of both bones of the forearm was followed by emphysema of the whole extremity in two days. Recovery took place uninterrupted after shoulder amputation.

2. An abrasion of the outer side of the knee was followed in one day by phlegmonous emphysema of the entire leg and by constitutional symptoms of profound intoxication. Fifteen to twenty short incisions were made and drainage of bichloride dressings employed. In ten days gas bacilli and emphysema were gone and recovery interrupted only by a supuration of the knee joint took place. This case again brings up to consideration the more conservative methods of treatment.

Discussion of the paper by L. M. Loeb.

L. F. Barker spoke on the circumstances of the discovery of the organism. He urged early recognition of the disease and treatment.

Dr. H. Gideon Wells mentioned a case in which the emphysema was first noticed in the subcutaneous tissue of the left shoulder, extending some distance in the course of a few days. Because of the finding of pulmonary tuberculosis, it was suspected the emphysema was due to a tuberculous abscess connected with the chest wall which had ruptured. At autopsy this was found to be not the case, but due to the bacillus *aerogenes capsulatus*.

George H. Weaver, Sec.

The Sangamon County Medical Society held its regular meeting Monday evening, April 8th in the probate clerk's office in the court house. In the absence of the president and vice-president, upon motion Dr. Kreider presided. The reading of the minutes of the previous meeting was dispensed with, as they appeared in the last issue of the Illinois Medical Journal. The names of Drs. Maxon, Henderson and Clements were proposed for membership and referred to the board of directors to be acted upon at the

next meeting. Dr. Barker as chairman of the committee appointed to secure a permanent place of meeting, assured the Society that he had permission from the Court House Committee, to promise us a room in the building where we could hold our meetings. The subject for the Society's consideration being "The Relative Values of Diagnosis and Therapeutics in the Practice of Medicine." Dr. G. F. Steriker presented the subject from the standpoint of the diagnostician. The therapist must admit that success in treatment requires both accuracy and completeness in diagnosis.

The physician in treating a case should first make his diagnosis as to the cause of the ailment. Before prescribing he should have a clear conception of what he is trying to accomplish, no remedy should be given unless there is a distinct indication for its use. Diagnosis being a practical art, should include not merely the recognition of disease, but also the health value or resisting power of the patient. The physician should never forget that a patient is a unit. Success in treatment follows only upon diagnosis of the most comprehensive character. The status praesens should be clear to the physician, not only at the outset, but at every stage of the disease, constantly a watchman, a therapist only when necessity arises. Modern re-search has made medicine an exact science. The object of the diagnosis is to determine the condition of the patient who may be suffering from disease. Detection of the phenomena of disease, also the effects of disease in the organism, and the morbid process which is the cause of the phenomena is ascertained.

In addition to naming a disease diagnosis should determine the stage and complications. Diagnosis implies ability to estimate the danger liable to arise and outcome of the disease. Diagnosis is not simply naming a disease, as it is not the disease we treat, but a patient with an ailment, knowledge of environment made of life etc., come by enquiry. The benefits of diagnosis an ability to remove or prevent the occurrence of morbid processes or to mitigate their effects by rational therapeutics. Where diagnosis is not made with confidence, treatment is simply one of symptoms. Therapeutics without diagnosis is like a ship without a rudder. I believe the diagnostician does more for medicine than the therapist, he locates disease and demonstrates the cause, shows pathological changes and sums up the health power of the individual. He also guides and directs the therapist under his power, treatment, prospers and science advances, he guides and directs and lifts the therapist out of the rut of empiricism and places him on the platform of scientific certainty, thus enabling him to battle with the direct cause of disease.

Dr. O. B. Babcock in speaking of the values of therapeutics said: The brilliancy of acute diagnosis is oftimes obscured in the eyes of the patient's friends when the verdict is—there can be no therapeutical application of any benefit. Cited a case wherein Neusser administered quinine in a case of supposed puerperal septicaemia; case recovered. Errors in diagnosis are quite common, even in the greatest medical centers, there is no way of verifying

the diagnosis except a dependance in therapeutics. When the disease named is cured by proper therapeutical application the name is right, when not cured the diagnostician has a chance at the post mortem. That therapeutics is a neglected branch is evidenced by this quotation, "and contrast this with the hopeless scepticism of the day as illustrated by the conspicuous absence of therapeutics from the proceedings of the late International Medical Congress."

In the present day a medical meeting makes up its program and to be considered interesting must be all surgical, pathological, bacteriological, etc., subjects. Referred to a Medical Society that had fifty papers offered, only two of which by title, indicated anything would be said regarding the treatment of disease. Therapeutics has advanced with the other branches of medicine. "The most skillful operator who fails to treat his cases medicinally with equal skill, will have worse results than he who, though bungling in his surgery yet uses drugs intelligently after his slashing is finished." One thing needed greatly, is more definite statements of the exact use of newer remedies by reliable observers. The shelves are crowded with partially emptied proprietary medicines and a very unsatisfactory state of mind brought about. Indeed we can truly be said to have fashions in therapeutics and the patient to be cured must avail himself of the remedy while it remains in style.

The new era in therapeutics dates from the introduction of quinine, previous to this the alkaloids known, were considered chemical toys too dangerous for use, today we are dependent upon them. The use of tablets has become general, a great improvement in accuracy and convenience. The introduction of antitoxine and its general use promises to save more lives than any single remedy we have, it opens up to view a time to come when all diseases dependent on germ action for their causation will be controlled by serum therapy. The physician who ignores therapeutics neglects the keystone of the arch of all medical knowledge. The physician should carefully choose new remedies, no better authority for the usefulness of medicine can be had than the standard works of distinguished authors on practice of medicine. Therapeutics is getting nearer, every day, to being a fixed science. The public demands relief for its ills and without therapeutics there would soon be no doctors of medicine. This is shown markedly by the demand for patent medicines by the public. Many people make their own diagnosis and prescribe for themselves, therefore politicians know when they have that "tired feeling" and resort to those aromatic mixtures of Spts. Frumenti made as pleasant to the taste as a Manhattan cocktail is said to be. The rounder knows he will feel better in the morning after using the well advertised tablets whose motto might be "Wir nimmer schlafen," as they are said to work while the patient sleeps. Poor, tired overworked, nervous woman gazes on the pictured face of senile smiling Lydia and feels that she is saved. Cases of this character we are apt to overlook, to dismiss with but little attention and they drift into the hands of the

homeopath whose every little detail of their complaint is thoughtfully gone over and a remedy suggested, and diagnoses to burn given them. It becomes our duty to gather this class into the fold, and therapeutics of the nicest will alone accomplish this object, and make the general practitioner give the attention to the minutest detail of any disorder in the organism of those who are under his care, and proceed to remedy by proper hygiene and therapeutical measures our patients will be improved, mankind will be blessed, the specialist and surgeon will have but little to do and the general medical man will truly come into his kingdom.

In the discussion of these papers Dr. A. E. Prince thought the subjects inseparable, oft-times a correct diagnosis is essential to successful treatment, especially is this true in chronic and systemic afflictions; reported a case treated wholly symptomatically. Sometimes they will terminate successfully; but if a correct diagnosis has been made the application of medicine is more satisfactory. Eminence in the profession is attained by ability to make a correct diagnosis, which leads on to specialism. Careful and thorough diagnosis necessary. The public themselves apply remedies they appreciate and soon learn who are the careful diagnosticians. S. E. Munson, —diagnosis must be followed by therapeutics. All the good and best diagnosticians rely on new remedies and adopt them in their work. Therapeutics must not be over-shadowed by diagnosis. Many successful practitioners, from a financial standpoint, succeed by treating afflictions, symptomatically. Diagnosis wholly would produce more faith healers, osteopaths, etc. Foreigners will soon pay more attention to therapeutics than now, when absolute diagnosis is the main ambition. Dr. L. L. Leeds said the essentials of therapeutics was something to do the patient good. A correct diagnosis aids this. Therapeutics is one of the broadest fields in the science of medicine. Diagnosis must come first, then any or all means to palliate, alleviate or cure. Dr. S. Ellen Rourke thought many physicians were simply routinists—she depended greatly on nature—made no diagnosis and treated symptomatically. Dr. O'Hara thought the human organism too complex to oftentimes make an absolute diagnosis. Dr. Margaret Shutt did not see how the subject could be divided, one must necessarily make a provisional diagnosis which sometimes is subject to a radical change. Drugs must be used according to effect desired and results obtained. Had seen a case diagnosed as gall stone colic, which was operated on for same, no stones found, close examination revealed lead poisoning. Dr. Kreider complimented and congratulated the writers of both papers, thought they had proven the question from their standpoint. Some diseases can be accurately diagnosed, others we can only make provisional diagnosis. As diagnosis becomes exact therapeutics will become more accurate. Nature is the doctors great partner. In Germany the great contention is to make an exact diagnosis, anything in the way of treatment will do. Dr. Barry thought correct diagnosis when possible an absolute essential; without the standard

remedies what could we do with disease? We are in too great a hurry, do not take time enough to study our cases. A good therapist simply aids nature. Dr. Prince spoke of common sense in the practice of medicine even when great book learning proves futile, the man with good common sense may seemingly work miracles. Dr. Dixon said the older practitioners knew little of pathology or diagnosis, but did understand most thoroughly the use of their few remedies. We should strive for the higher plan of medical science by becoming accurate diagnosticians. Dr. Stericker in closing said, he believed that diagnosis had done more for medicine than therapeutics. Many of the old-time severe cases, not seen today, due to the accurate comprehension of the condition of the system. A patient wants to know what is the matter, will they recover, how soon. Positive diagnosis absolutely needed.

Dr. Babcock in closing said: Ordinarily I endeavor to make a diagnosis or find out what the trouble is—sometimes failed—likewise with therapeutical applications. However he appreciated the fact, from the remarks made, that diagnosis was gradually rising to the plane of therapeutics.

Dr. O. B. Babcock moved that the secretary write to Dr. Heber Robarts of St. Louis, inviting him to give us a talk on electricity in medicine at our next meeting. The motion being seconded, was put and carried. There being no further business, the Society adjourned for lunch.

B. B. Griffith,
Secretary.

A regular meeting of the Chicago Neurological Society was held February 28, 1901, with Dr. Hugh T. Patrick, president, in the chair.

Dr. H. N. Moyer presented a case of Raynaud's disease. He said that this was the third case of the affection he had seen, and they all presented marked differences.

His first case was in a man aged 35, who had the disease for eight years. It began in a small spot upon the inner side of the left leg, which turned white, was painful, later became red, then black and finally sloughed out, leaving an ulcer which healed slowly. These patches occurred at intervals upon the legs and later the tips of the toes were involved with a characteristic gangrenous patch at the pulps which sloughed away. At no time was more than one finger involved, and several months would elapse from the beginning of the process in a whitened area through the various stages of gangrenous ulceration and healing. This patient had one hand decidedly more affected than the other, and at the wrist on that side no pulse could be felt. A very faint radial pulse could be distinguished in the other hand.

His second case was that of a man of 40 years of age, whose disease came on quite suddenly and involved the entire right hand. He was a machinist by occupation, working at a lathe, and in his work he was compelled to strike the lever of the machine with slight force at quite regular intervals. He attributed the trouble to this use of his hand. In this hand also there was no radial pulse. The ap-

plication of hot water would bring on a spasm of the vessels of the entire hand, which was acutely painful. The hand would present a waxy pallor. These attacks gradually became more painful and were finally followed by an ulceration of one finger, after which the disease seemed to disappear, the patient for several months having had no trace of it.

The third case was seen in consultation with Dr. S. L. Zeltner, who read the following history: The patient is 13 years of age, of Norwegian descent, tall, has light complexion, mentally bright, very fond of reading, of an emotional nature and has had several hysterical attacks. She has had nearly all the ordinary children's diseases. The family history is not specially significant. The mother is of nervous temperament. She has four brothers living, and in good health. It is stated that her grandmother had a finger that used to turn white for a short time.

She first came under observation February 9, 1901, at which time several fingers were white and painful, but one more so than the others. While under observation, the fingers became red, again turned white and then assumed a bluish tint, changing colors constantly. The hands were cold, but sensation was not impaired. The patient stated that she first felt numbness and tingling in the left little finger and it turned white, that occurring about five days before she was seen. The heart, lungs and the nervous system, with the exception of the local symptoms in the hands, were quite normal. Dr. Zeltner's first impression at the time he saw her was that her finger had been frozen, but the rapid alternations of color soon showed that this explanation was not correct. When the fingers first turned white, she had no pain, but at the time she came under observation there were distinct painful paroxysms of about one-half hour's duration, which came on three or four times a day. When first seen the fingers of each hand, three in number, were distinctly cyanotic, the little finger of the left hand more than the others. At present the middle finger of the left hand and the fourth finger of the right hand are most affected. The tips of the fingers are very tender to the touch. In the center of the pulp of the middle finger the skin appears to be raised and white, with a reddish zone around it, much resembling a small blister. Apparently, gangrene has set in in this finger. There has been no change in the nails and they continue to grow.

The patient has been treated with galvanism every day. The hands are immersed in water, connected with the positive pole and the negative is applied at the nape of the neck. Several times a day the patient is instructed to raise the hands for a few minutes. A thick cotton dressing is applied to the hands when she goes out of doors, and she has the additional protection of a muff. The paroxysms of pain were best relieved by a 10 per cent. solution of menthol in alcohol. Chloroform liniment was applied, but with no effect. The patient claims that she gets more relief from applications of very cold water. Warm water increases the pain. Internally she was given the suprarenal gland with no effect. Later she

was given quinine and strychnine with marked improvement.

The president presented patients as follows:

OPTIC ATROPHY IN A CHILD.

A boy of twelve years was first seen September 18, 1900, through the kindness of Dr. F. A. Phillips. The father had died insane, probably of general paresis. The first child was fifteen years of age and perfectly well; the second pregnancy terminated with a miscarriage at about four months and the patient was born at full term about two years later. The following child was born three years after the patient and presented some evidence of inherited lues, while the last child was afflicted with various skin diseases until several years old. Soon after the patient's birth he developed snuffles, which continued for several years. The mother stated that he had never been strong on his legs, and walked "as if his shoe hurt him." Otherwise his development was normal with the exception of occasional nocturnal enuresis which still continued, the urine sometimes slowly dribbling away. For the last three years he had been subject to attacks of vomiting, which always occurred in the morning, and were followed by sleep, after which he seemed perfectly well. During the last year these attacks had begun with a pain in the head, and had been more frequent and after an attack the scalp would be tender for a day or two. They were apparently migrainous in character. Vision had begun to fail only a few months before and at the time of examination, as determined by Doctor Phillips, was R. 15-200—L. 20-200, and there was simple atrophy of both optic nerves. The right pupil was slightly larger than the left, both were somewhat irregular and responded to accommodation, but not to light. Sensation and muscular power were normal, there was very slight incoordination of both upper and lower extremities and slight intention tremor of the hands. Deep reflexes were normal and there was no ulnar analgesia, but pressure on the ulnar nerve seemed to be rather less painful than normal. The teeth, while not of the typical Hutchinson type, were considered to indicate congenital syphilis. Since September the boy had become totally blind, the other symptoms remaining about the same. On account of the brisk knee jerks, the diagnosis of precocious tabes would be rather venturesome, but the case was considered to be of that type. That is, to be classed with the late degenerative diseases caused by syphilis, such as tabes and general paresis.

OPTIC ATROPHY IN A MIDDLE AGED WOMAN.

This patient, seen through the kindness of Dr. R. A. MacArthur, was in vigorous health and a careful examination revealed absolutely no sign of disease except the double optic atrophy. There was an indefinite history of some sort of a sore on the vulva a number of years before, but no history of secondaries or subsequent trouble until the vision began to fail about six months ago.

OPTIC ATROPHY IN A MAN OF SIXTY-NINE.

Examination of this patient, seen at the request of Dr. Phillips, revealed no cause of his

simple optic atrophy except general and well advanced arterio-sclerosis. He presented a large cicatrix of the prepuce, which he said had been caused more than thirty years before by his wife viciously pinching it with her thumb-nail, this wound being followed by "blood poisoning," by which the patient meant severe local inflammatory changes. Further than this, no evidence of syphilis could be found.

HOMONYMOUS HEMIANOPIA OF SUDDEN ONSET.

This patient, referred by Drs. Broell and MacArthur, was a young married woman in perfect health, with no signs of disease except the visual condition. Two months before, while attending to her housework, she stooped to pick something from the floor and on rising felt dizzy and discovered to her consternation that she was practically blind. She had severe pains in the head, was dizzy and vomited. For several days she was nearly blind, when her vision gradually improved until there was left the present hemianopia. Examination several weeks ago found the Wernicke sign positive, but examination of the patient at the meeting failed to confirm this. The lesion must have been a hemorrhage, but in the absence of all evidence of heart, vascular, kidney, diathetic and toxic disease and with no hemophilia, the cause of the hemorrhage was exceedingly obscure. Considering the Wernicke sign to be negative, the reporter was inclined to believe the lesion an occipital one, as he had once before seen hemianopia from cerebral hemorrhage in this region, and a hemorrhage elsewhere in the visual tract would probably have involved other structures also.

FACIAL PARALYSIS, MULTIPLE SCLEROSIS AND CEREBRAL THROMBOSIS.

This patient was seventy-two years old and had had an almost complete facial paralysis on the left side since he was two years old. There were no signs of ear disease and the cause of this facial paralysis must remain obscure, although the escape of a few twigs of the upper branch of the facial would incline one to consider the lesion nuclear or radical. The patient presented a perfectly typical and exaggerated intention tremor affecting the arms most, but also involving the lower extremities, the trunk and the neck. This tremor he had had for at least thirty-five years, during which time it had gradually been growing worse. There were no sensory symptoms, no nystagmus and no disturbance of speech except such as was due to the facial paralysis. In the absence of evidence of any other cause, Dr. Patrick was inclined to believe the tremor due to multiple sclerosis.

Several weeks before, in the night, the patient developed paresis of the right lower extremity. This had been gradually improving and he now walks almost as well as he did before this came on. As he had advanced arterio sclerosis, a senile heart and at times an intermittent pulse, this monoplegia was believed to have been caused by thrombosis of an artery in the leg center of the brain.

Dr. Bayard Holmes presented the clinical history and post mortem specimens of a case of antrum infection and sigmoid thrombosis without present middle-ear disease, presenting the symptoms of facial neuralgia and none of the ordinary symptoms of disease in the petrosa; retropharyngeal gravity abscess, general sinus thrombosis without much impairment of cerebation. The case was reported to the Society owing to the difficulty presented in the diagnosis. There were few psychical symptoms and the various neuralgias and peripheral nerve lesions gave no very definite pointings for cerebral localization. A rough synopsis of the case was given as follows: Rigor and high temperature beginning without apparent cause, neuralgia of the right fifth nerve for ten days, typhoid or septic condition resembling sinus thrombosis for six weeks, abscess appearing suddenly in the posterior right pharynx, six weeks later discharge from the right ear, paralysis of the right leg, death, autopsy, antrum and general mastoid disease, sigmoid and general sinus thrombosis, extending into the cortex of the left hemisphere.

The patient was a physician in active practice. He was the father of a large family of perfectly healthy children. He had himself suffered from no disease except malaria and gout. He came in one day after light exercise out doors complaining of a chilly sensation, had a terrible rigor which lasted over an hour, followed by a temperature of 104 and pain through the back and legs. Headache was not a symptom at the beginning, but appeared at the end of forty-eight hours. Four or five days afterward a distinct neuralgia manifested itself over the distribution of the right fifth nerve. A suppurative pharyngitis made its appearance, which was opened and drained thoroughly with continued irrigation. The pain and tenderness over the whole right side of the head continued to be excruciating. A most careful search was made for a local source of infection in the antrum of Highmore and in the mastoid sinuses. A diagnosis seemed to rest between a neuralgia with malaria and an osteomyelitis of uncertain origin at the base of the skull, possibly from one of the sinuses of the nose. The case, while slowly improving, continued with various fluctuations. There was no adenitis over the mastoids or about the neck.

Each of the nostrils, orbits and ears was separately and carefully examined. Disease was looked for unsuccessfully in both frontal and maxillary sinuses. The mastoids were separately examined and the ear drums inspected, but no symptoms of disease discovered.

After a time the patient complained of little chills at intervals, and vomited without apparent reason so far as the condition of the stomach and the vomited matter was concerned. Posterior rhinoscopy showed nothing abnormal. Transillumination of the face showed two sides alike, not well lighted, this probably due to either thick cheeks or small antra. Nothing abnormal by the anterior rhinoscopy. Both ears were examined perfunctionally with everything apparently normal and hearing good. No pain or tenderness in the region of the ear.

Without any warning and without any ap-

parent local disease, there was discharged from the right ear in the course of a night at least two drachms of dark pus, which came through a perforated drum head and gave some relief to pain and nervousness. Afterward commencing paralysis, and following the paralysis a convulsion took place. A diagnosis was made of a localized lesion, probably abscess, in the neighborhood of the motor cortical area for the right leg and foot, secondary to suppurative in the pharynx. An exploratory operation was undertaken to relieve the symptoms, but the trephine disclosed nothing definite. The patient did well after the operation and the wound healed completely. Shortly after the patient died from exhaustion.

The post mortem findings were as follows: The skull-cap was moderately adherent over the longitudinal sinus. There were some flakes of pus on the convexity of the dura over the anterior portion of the sinus. The left hemisphere showed several punctate extravasations about the needle wounds of the trephine operation. The dura was only slightly adherent over the upper border of the left hemisphere with light fibrous exudate. The blood vessels of the dura and pia were thrombosed over at least six centimeters of the upper surface of the left hemisphere nearest the longitudinal sinus. The cut surfaces of the cortex itself had a dull greenish white appearance. The longitudinal sinuses were filled with a suppurating thrombus. There were a number of flakes of suppurating fibrin along the lateral walls of the sinus. Both lateral and both sigmoid sinuses were full of pus and blood, the right distinctly fluid. The dura over the right petrosa was adherent on the posterior surface. The jugular veins in the neck were not examined. No indications of infection were found in the lungs, the heart or in the abdominal organs.

The right temporal bone was removed for more careful study and with it portions of the surrounding bones. There was no sign of disease in the external auditory meatus, but the petrosa showed a honeycombing from erosion. If we attempt, in the light of the autopsy, to analyze the symptoms in the case and refer each to its pathologic source, we must first assume an early forgotten or overlooked middle-ear disease, perhaps as early as childhood or babyhood. There can be little doubt that the antrum was the primary focus of the infection. There is nothing in the pathological findings which would explain the facial neuralgia.

From a study of this case it seems reasonable to make the following conclusions:

(1) Mastoid antrum disease is the appendicitis of the head.

(2) In every case of infection within the head, where some other source of the infection cannot be demonstrated, the mastoid antrum should be explored.

(3) The facial neuralgia is not explainable by the pathologic findings.

(4) The excellent mental condition, even up to the last, seems hardly consistent with the obliteration of both jugulars and the suppuration in the great sinuses of the dura.

Chas. H. Lodor,
Corresponding Secretary.

PROGRAM OF PAPERS FOR PEORIA MEETING.

SECTION ONE.

Practice of Medicine, Medical Specialties, Materia Medica and Therapeutics.

Chairman.....Charles D. Center, Quincy
Secretary.....G. W. Nesbitt, Sycamore
Address, Frank Billings, Chicago.
"The Uric Acid Fallacy."

1. The Clinical Laboratory in Private Practice, C. Martin Wood, Decatur
2. Typhoid Fever Complicated with Syphilis, Wm. H. Maley, Galesburg
3. The Inoculation Theory of Malarial Fever Through the Agency of Mosquitoes, S. E. Munson, Springfield
4. Diagnosis of Malaria in Children, E. J. Brown, Decatur
5. The Home Treatment of Consumption, R. H. Babcock, Chicago
6. Angio-Neuroses, F. P. Norbury, Jacksonville
7. Traumatic Neurosis, Harold N. Moyer, Chicago
8. Tubercular Peritonitis, with Report of Case (Illustrated), A. C. Cotton, Chicago
9. Some Suggestions for the Care and Treatment of the Insane, D. R. Brower, Chicago
10. Premonitions and Early Symptoms of Insanity, Sanger Brown, Chicago
11. Syphilitic Insanity, E. M. Eckard, Peoria
12. Imperative Conceptions, H. T. Patrick, Chicago
13. The Condition of the Kidneys with Regard to the Administration of Diuretics, A. R. Elliott, Chicago
14. The Functions of the Tonsils, with a Few Suggestions Regarding the Differential Diagnosis of Tonsillar Affections, R. C. Matheny, Galesburg
15. Anterior Poliomyelitis, Jno. C. Cook, Chicago
16. Suggestive Therapeutics, A. E. Prince, Springfield
17. Some Observations on the Use of Electricity as a Therapeutic Agent, Jas. C. Gill, Chicago
18. Diagnosis of Aortic Aneurysm, A. R. Edwards, Chicago
19. Aneurysm of the Aorta of the Recurrens Type, Robt. B. Preble, Chicago
20. The Effect of Hot, Saline or Carbonated Baths in Valvular Heart Disease and Their Adoption in Private Practice, Jno. A. Robison, Chicago
21. Normal Cardiac Area in Children, Wm. J. Butler, Chicago
22. Heart Strain, Its Results and Its Treatment, J. M. G. Carter, Waukegan
23. Lymphatic Leukaemia, Jas. B. Herrick, Chicago
24. Vagaries in Therapeutics, W. S. Caldwell, Freeport

25. Mediastinal Tumor,
E. Fletcher Ingals and Otto T. Freer,
Chicago
26. The Medical Aspect of Appendicitis,
W. E. Gilleland, Coatsburg
27. Trichiniasis,
Jos. Brayshaw, Berlin
28. What are the Most Efficient Remedies for
Shock, Syncope and Temporary Exhaustion,
and How Should They be Used?
N. S. Davis, Sr., Chicago
29. Placenta Previa,
J. N. Nelms, Taylorville
30. The Relative Value of Therapeutics in the
Practice of Medicine,
O. B. Babcock, Springfield
31. Diagnosis of Smallpox,
E. F. Baker, Jacksonville

SECTION TWO.

Surgery, Surgical Specialties and Obstetrics.

Chairman.....M. L. Harris, Chicago
 Secretary.....W. F. Grinstead, Cairo

Address—Fernand Henrotin, Chicago.
 "Surgery and Sex."

1. Conservative Operations upon the Uterine
Appendages,
Henry T. Byford, Chicago
2. Intravesical Surgery and the Operation
Cystoscope,
F. Kreissl, Chicago
3. Tuberculosis of the Bladder, with report of
Case,
P. L. Markley, Rockford
4. Gumma of the Spermatic Cord, with the
report of a Case,
R. R. Campbell, Chicago
5. Surgery of the Chest, Particularly Pneumo-
tomy and Pneumectomy,
J. B. Murphy, Chicago
6. Penetrating wounds of the Chest,
J. R. Hollowbush, Rock Island
7. Glioma of the Brain. Recovery from the
Operation and Report of the Present
Status of the Patient,
J. F. Percy, Galesburg
Discussion opened by H. T. Patrick, Chi-
cago, and F. P. Norbury, Jacksonville.
8. Infection in the General Surgical Sense,
D. N. Eisendrath, Chicago
9. Lacerated and Contused Wounds and their
Treatment, W. W. Essick, Murphysboro
10. Compound Dislocations of Large Joints,
H. V. Ferrell, Carterville
Discussion opened by R. A. Kerr, Peoria
11. Recent Developments in our Knowledge of
Cancer of the Uterus,
Emil Ries, Chicago
12. Removal of the Uterus per Vaginam:
Hysterectomy, Vaginal Myomectomy or
Morcellation,
Henry Parker Newman, Chicago
13. The Prevalence of Trachoma in the State
of Illinois,
William H. Wilder, Chicago
Discussion opened by A. L. Adams, Jack-
sonville
14. Purulent Ophthalmia of the New Born,
Willis O. Nance, Chicago
- 14-a Electrolysis in Trachoma,
P. Dombrowski, Peoria

15. Differential Diagnosis of Ovarian Tumors,
E. M. Sutton, Peoria
16. Gall Stones and Their Surgical Treatment,
Arthur Dean Bevan, Chicago
17. Surgical Cell Activity,
J. E. Coleman, Canton
18. The Treatment of Prolapsus Recti,
A. E. Halstead, Chicago
19. Rectal Fistula,
J. Rawson Pennington, Chicago
20. Laceration of the Perineum with Prolapse
of the Posterior Vaginal Wall and Rec-
tum: Instrumental Delivery with Repair
of the Parts,
A. C. Ragsdale, Metropolis
Discussion opened by W. T. Sloan, Peoria.
21. Some Observations on the Surgical Pa-
thology of Mastoid Diseases,
Norval H. Pierce, Chicago
Discussion opened by P. Dombrowski,
Peoria.
22. The Surgical Aspect of Nasal Catarrh,
Wm. L. Ballenger, Chicago
23. Sequestration and other Dermoids,
L. L. McArthur, Chicago
24. Cases Illustrating the Major Plastics of the
Head and Neck,
Weller Van-Hook, Chicago
25. The Operative Treatment of Saddle-Nose,
with Report of Two Illustrative Cases,
E. J. Senn, Chicago
26. Tubercular Glands of the Neck,
Alex. Hugh Ferguson, Chicago
27. Surgical Intervention in Intestinal Perfora-
tion of Typhoid Fever,
George L. Eyster, Rock Island
Discussion opened by E. Wyllis Andrews,
Chicago.
28. Treatment of Intestinal Fistula by Exclu-
sion of the Bowel, Carl Beck, Chicago
29. Kraurosis Vulvae,
William E. Schroeder, Chicago
30. Treatment of Abortion,
Charles B. Reed, Chicago
31. Dilating Irrigations in the Treatment of
Chronic Gonorrhoea, with Exhibition of
a New Dilating Irrigator,
E. A. Fischkin, Chicago
32. The Deformities of Infantile Paralysis,
Their Pathology and Treatment,
John L. Porter, Chicago

SECTION THREE.

Etiology, Hygiene, State Medicine and Medical Jurisprudence.

Chairman.....F. P. Norbury, Jacksonville
 Secretary.....C. C. Carter, Rock Island

Address—Geo. W. Webster, Chicago.
 "The Duty of the State in Regard to
 Tuberculosis."

1. What Has Been Accomplished by Medical
Legislation,
J. W. Pettit, Ottawa
2. A Case in Medical Jurisprudence,
F. C. Winslow, Jacksonville
3. Potable Waters and Pure Waters,
R. W. Palmer, University of Illinois
4. The State Care of the Tuberculous Patients
of the State, John A. Robison, Chicago

5. Etiology and Prophylaxis of Insanity,
F. H. Jenks, Elgin

SECTION ONE.

"Some Suggestions for the Care and Treatment of the Insane," by D. R. Brower, M. D., Chicago.

Synopsis: Objections to our present large institutions; too far from the homes of many patients; too much prejudice against them; too many unemployed chronic insane in them. Suggest the establishing of wards for the care of acute cases in the numerous city and town hospitals throughout the State, and the board out on the Scottish plan of many of the chronic insane.

"Typhoid Fever Complicated with Syphilis," by Wm. H. Maley, M. D., Galesburg.

Synopsis: Report of a case of typhoid fever in a young syphilitic female with remarks on the danger of overlooking the syphilis.

- (a) Characteristic typhoid symptoms.
- (b) Widal reaction.
- (c) Treatment.
- (d) Hemiplegia.
- (e) Recovery.

"The Effect of Hot, Saline, or Carbonated Baths in Valvular Heart Disease and Their Adoption in Private Practice," by John A. Robinson, M. D., Chicago.

Synopsis: Review of the history of this form of treatment. Its therapeutical action. The cases in which it is indicated and contraindicated. Detailed cases. Its management in private practice. The resistant exercises—substitution for them. Baths versus drugs.

"Lymphatic Leukaemia," by James B. Herick, M. D., Chicago.

Synopsis: Etiology obscure. Clinically, acute and chronic varieties. The acute form resembles an acute infection, the chronic is like Hodgkin's disease except as to the blood findings. Characteristics of the blood. Abstracts of histories of six cases with exhibition of blood preparations.

"Diagnosis of Aortic Aneurism," by Arthur R. Edwards, M. D., Chicago.

Synopsis: Considering first, the etiological diagnosis, especially regarding specific disease; Bramwell's clinical division; consideration of symptoms alone; pain, cough, dyspnoea. Inspiration, palpation, auscultation, percussion, signs. Condition of heart, vessels and lungs. Evidences of pressure. Diagnosis of issue of mechanism. Diagnosis of location. Differentiation of isolated symptoms. Diagnosis by treatment.

"The Clinical Laboratory in Private Practice," by C. Martin Wood, M. D., Decatur.

Synopsis: Importance of clinical laboratory in modern practice. Why more physicians do not make use of a laboratory. Its value not appreciated, especially its practical value. Time and cost. No training in laboratory methods.

Remedies suggested: a central laboratory; expert assistant. Advantages to the physician, as a student, as a practitioner. Extent of a well equipped laboratory. Apparatus needed. Summary of work done in a private laboratory.

"Diagnosis of Malaria in Children," by Everett J. Brown, Decatur.

Synopsis: Frequency of the non-recognition of malaria in children and infants. It exists in the acute form, as in adults, and as chronic malarial poisoning, and in an irregular or masked form; it is not less frequent in children than in adults, but more often unrecognized. A congenital form exists if mother is infected. Often follows other acute diseases.

Symptoms: Often no distinct chill, but cyanosis and sometimes convulsions; paroxysms of fever; enlarged spleen.

Diagnostic points: Palpable spleen, discovery of the parasite in the blood, anaemia, irregular fever, and the therapeutic test.

Malaria may be mistaken for meningitis, multiple neuritis, spasmodic torticollis, pulmonary diseases, bronchitis, septicaemia, pyaemia, tuberculosis. Importance of palpating the spleen in all sick children.

Report of case in child aged three years, with repeated convulsions, cyanosis and intermittent fever. Treated for three months for tubercular meningitis; cured by quinine.

Case child aged two years. Right hemiplegia and aphasia with repeated convulsions; a palpable spleen directed attention to blood and the tertian parasite was found. Good recovery.

"The Home Treatment of Consumption," by R. H. Babcock, M. D., Chicago.

Synopsis:

- (1) We possess no specific or satisfactory treatment.
- (2) The essentials are, fresh air, i. e., life in the open air, a proper hydropathic treatment and the improvement of nutrition.
- (3) These can be secured at home, i. e., in the home climate.
- (4) The consideration of how these can be secured.
- (5) Citation of cases.

"Imperative Conceptions," by Hugh T. Patrick, Chicago.

Synopsis: Synonym, imperative ideas. Definition. Cases illustrating different forms. To be clearly distinguished from insanity, hysteria, hypochondria and neurasthenia. Nature and relation to psychoses and neuroses. Prognosis and treatment.

"What are the Most Efficient Remedies for Shock, Syncope and Temporary Exhaustion," by N. S. Davis, Sr., Chicago.

Synopsis: The pathological conditions that constitute shock, syncope or exhaustion. Partial or complete suspension of the respiratory, cardiac and vaso-motor functions and diminished cerebral sensibility. Causes: Sudden and severe depressing influences, either physical or mental.

Treatment: Objects to be accomplished by treatment; the remedies to be used and the physiological basis of their action. Popular errors and their injurious effects.

"Angioneuroses," by Frank P. Norbury, M. D., Jacksonville.

Synopsis:

1. Definition. Affections of the vaso-motor centers and nerves.
2. Etiology. Occur chiefly in the neuropathic. Heredity a feature—may have direct hereditary transmission.
3. Variety of affections. Angio-neurotic oedema. Hydrathrosis intermittens. Night palsy. Angiopathic conditions in neurasthenia. Angiopathic conditions in hysteria. Angiopathic conditions in exophthalmic goitre. Angiopathic conditions during menopause.
4. Diagnosis.
5. Treatment.

"The Inoculation Theory of Malarial Fever Through the Agency of Mosquitoes," by S. E. Munson, M. D., Springfield.

Synopsis:

1. Brief review of the early literature upon this subject.
2. Manson's Theory, and Ross. Investigations.
3. The mosquito as the intermediary host.
4. The role of the Flagellae.
5. The habitat of the mosquito and the variety that is believed to act as the host.
6. Efforts of the various governments to determine the cause of malaria.
7. Methods used for the destruction of the mosquito and its breeding places.
8. The clinical forms of malaria and the varieties of Plasmodia.
9. Treatment of malaria.

"Mediastinal Tumor," by E. Fletcher Ingals, M. D., and Otto T. Freer, M. D., Chicago.

Synopsis: The paper includes a clinical description of the case, followed by a report of the pathological findings on post mortem and an abstract of the important points in differential diagnosis.

"The Functions of the Tonsils, with a Few Suggestions on the Differential Diagnosis of Tonsillar Affections," by R. C. Matheny, M. D., Galesburg.

Synopsis: Outline of argument. The function of the tonsils has, until recent years, been a matter of conjecture. Many authorities confessed not to know their function. From not saying their function to saying they had no function was but a short step. To consider them as superfluous bodies was then a natural deduction. So it was natural to say they are inimical to the bodily good, and if inimical they should be eradicated. For this reason many surgeons remove all tonsils that are large enough to be gotten hold of. That practice is the result of ignorance of the physiology of the tonsils as well as the pathology of tonsillar affections.

The tonsils are not gland—their function is neither to secrete or excrete. They are masses of lymphoid tissue and the function of lymphoid tissue is that of an absorbent.

Not only are there lateral tonsils, but also an identical structure in the posterior wall of the pharynx and also at the base of the tongue. The four bodies are connected by chains of lymph nodules, thus completely encircling the entrance to the respiratory and alimentary tracts.

Lymphoid tissue, if not the home, is the rendezvous of the leucocyte. The placing of these lymphoid structures around the entrance to the trachea and oesophagus must bear some relation to the function of leucocytes. At once their phagocytosis action is suggested. These lymphoid structures act as a safe-guard against many pathological agents. One should therefore hesitate before destroying this wall of defence.

Many inflammatory affections of the tonsils are secondary—that is a reinfection, the tonsils bearing the brunt of an attack that would have affected a deeper and more vital organ.

It is impossible to outline the normal limits of a tonsil. Its size is not to be considered so much as its ability to perform its function. Its size, merely, is not an absolute cause for its removal.

Premonitions and Early Symptoms of Insanity," by Sanger Brown, M. D., Chicago.

Synopsis:

NORMAL.

Bodily and mental development. Rhythm in functional activity. Temperamental characteristics and tendencies.

MORBID.

Deviations from above. The insane diathesis. Simple depression, exaltation and alternating or circular states. Insomnia and dyspepsia, etc. Evolution of delusion. Management and treatment.

"The Medical Aspect of Appendicitis," by W. E. Gilleland, M. D., Coatsburg.

Synopsis: Appendix is very seldom, if ever, the primary site of inflammation. The inflammation usually originates in the mucous coat of the caput and involves the appendix by extension. Foreign substances in the appendiceal canal with consequence of inflammation and not the cause of it. Differentiation between medical and surgical cases. Hints on management and treatment of medical cases.

"The Traumatic Neurosis," by Harold N. Moyer, M. D., Chicago.

Synopsis: The term traumatic neurosis and its congeners, railway spine, traumatic hysteria and Erichsen's disease should find no place in clinical nosology. It is impossible to make a diagnosis from other forms of functional nervous trouble in the absence of a history of traumatism. There is nothing in the clinical history of these cases that is different from neurasthenia, hysteria or functional disturbance not associated with traumatism.

The adoption of a nomenclature which excludes the idea of special functional disturbance of the nervous system, puts our conception of these upon a firm practical basis, which admits of a rational prognosis based upon the individual features of each case.

"Aneurisms of the Aorta of the Recurrens Type," by Robert B. Preble, Chicago.

Synopsis: After a brief description of the anatomical relations of the aorta, the left recurrent nerve and the left bronchus, the functions of the recurrent nerve will be considered and the symptoms resulting from its irritation or paralysis will be described.

The difficulties in the way of the diagnosis of aneurisms of this type, the importance of their early recognition and their peculiar dangers will be considered and illustrated by two cases.

"Syphilitic Insanity," by E. M. Eckard, M. D., Peoria, Ill.

Synopsis: Importance of early diagnosis in cases of syphilitic insanity. Proper diagnosis results in relief by proper treatment of at least 33 1-3 % of all cases.

Necessity of careful observation resulting in decrease of number of insanity cases sent to State Hospitals for insane. Not written from the standpoint of a student of venereal disease, but a student of alienism.

Practically a condition of the brain due to a new syphilitic formation producing insanity.

Chief symptoms: Cerebral headache, nocturnal in character, epileptoid attacks, apoplectic attacks, sterility. Onset and diagnosis established by treatment. Further advanced cases show hemiplegia and athetosis.

Classification of syphilitic insanity includes primary and secondary stages of syphilis, acute insanity, melancholia and dementia, anaemias. Insanity of later syphilis after first to tenth year. Chronic or parasymphilitic insanity. Differential diagnosis of syphilitic insanity and parietic dementia. Pseudoparesis. Great opportunity for cure lies in prodromal stage. Injury to brain substance.

Treatment: Time, manner and extent.

"Trichinosis," by Jos. Brayshaw, M. D., Berlin.

Synopsis: Trichinosis is caused by the trichinae spiralis. Trichinae are found in all parts of the world. Found in two forms, the encapsulated and intestinal, infection takes place by taking the encapsulated parasite into the stomach in raw pork. The disease is more prevalent in Germany than in this country, probably due to the mode of preparing the pork.

Pathology: In striped muscle it causes an interstitial myositis. There is an increase of leucocytes.

Symptoms: The first symptoms may appear soon after eating the meat or may be several days later, and consist of nausea, vomiting, loss of appetite, colic pain, diarrhoea and bloody stools. Later the symptoms are muscular

pain, weakness and muscular stiffness and edema of face and hands.

Diagnosis: The disease is frequently overlooked and may be mistaken for muscular rheumatism, pneumonia, typhoid fever, myositis, malaria and grippe.

Treatment: Procure sleep, relieve pain and keep up the strength.

"Tubercular Peritonitis in Childhood," by A. C. Cotton, M. D., Chicago.

Synopsis: Report of a case with illustrations. Frequency—primary—secondary. Varieties. Development. Importance of early diagnosis. Cirrhosis of liver. Rheumatic peritonitis. Bacteriological examination. Hopeful prognosis. Laparotomy. Medical treatment. History of Adam H.

"The Relative Value of Therapeutics in the Practice of Medicine," by O. B. Babcock, M. D., Springfield.

Synopsis: Treatment in Germany with diagnosis. Treatment in "Bolivia," Ill., without nosis. The need of careful accurate reports and observations on therapeutics. People as their own diagnosticians and therapeutists.

SECTION TWO.

Address of the Section.

Surgery and Sex...Fernand Henrotin, Chicago

(1) Resection and exsection of the internal genitalia of women.

(2) Varieties of operation and resume of their supposed effect upon the physical, mental and moral nature of women.

(3) What constitutes "Womanhood" and how great a part does sexuality, as commonly understood play in the character of woman-kind.

(4) Mental development and emancipation of modern women and their relation to this subject.

(5) The attitude of the surgeon to this whole matter.

1. Conservative Operations upon the Uterine Appendages.

Henry T. Byford, Chicago

(1) Desirability of retaining the sexual functions.

(2) Possibility of separating adhesions, resecting ovaries and opening occluded tubes without bad results and with cure of the patient.

(3) Only extreme cases require castration.

(4) Illustrative cases.

2. Intravesical Surgery and the Operation Cystoscope.

F. Kreissl, Chicago

(1) A brief history of intravesical surgery.

(2) Various appliances used in this work, including Harris' Segragator.

(3) The merits of intravesical surgery.

(4) Its limitations.

(5) Illustrative cases.

3. Tuberculosis of the Bladder with Report of Case.

P. L. Markley, Rockford

(1) Brief history of literature.

(2) Etiology, symptoms and diagnosis.

(3) Pathology.

(4) Treatment illustrated by case with tuberculous ulcers of bladder relieved by local application of escharotics.

7. Glioma of the Brain. Recovery from the Operation and Report of the Present Status of the Patient.

J. F. Percy, Galesburg

(1) Justifiability of operation on the brain shown by the present condition of the patient.

(2) The actual results following operation on the brain should be reported in every instance.

(3) Brain tumor cases should be studied by both the neurologist and the surgeon in conjunction. Only in this way will unscientific "exploratory" brain surgery be done away with.

(4) The report of the findings by a trained pathologist should accompany every published report in case of brain tumor.

(5) The fundus of the eye should be watched with the ophthalmoscope for evidence of increasing optic neuritis after the operation.

Discussion opened by H. T. Patrick, Chicago, and F. P. Norbury, Jacksonville.

8. Infection in the General Surgical Sense.

D. N. Eisendrath, Chicago

(1) Etiology and pathology. Ordinary pus producing organisms in the human being. Their mode of action in peptonizing the tissues. Difference between Staphylococci and Streptococci. Relation to the general septic diseases. Elimination of micro-organisms. Germicidal action of blood serum. Infection Atria of micro-organisms. Tetanizing properties.

(2) Surgical anatomy in relation to the spread of infection. Head—pus in scalp—how limited by the occipito-frontalis and its relation to interior of cranium. Face—relation of veins to sinuses of brain and skull. Relation of lymphatics to retro-pharyngeal tissue. Neck—relation of deep cervical fascia to the spread of pus. Thorax—upper extremity—role played by endothoracic fascia. Surgical anatomy of the breast. Relation of the subdeltoid bursa to the shoulder joint. Relation of the lymphatics to the spread of infection. Finer anatomy of the hand and forearm. Lower extremity—inguinal and retro-peritoneal glands. Peculiarities of joints. Lymphatic circulation. Diagnosis—differential diagnosis. Treatment. A plea for the early recognition of the spread of infection. Advocacy of free incisions. Use of retractors and of the bloodless method of operating. Use of a general anaesthetic if possible. Irrigation, cauterizing and packing. Dry and wet dressings—indication for the use of each. Great advantage of the wet dressing. How they act in preventing the spread of suppuration. Solutions to be used for wet dressing as bland as possible. Advantages of salicylic acid solutions. Dusting powders—their use and abuse. The use of splints. After treatment to correct deformities (Krukenberg and Zander apparatus). Treatment of general condition not to be neglected.

11. Recent Developments in Our Knowledge of Cancer of the Uterus.

Emil Ries, Chicago

(1) How cancer of the uterus spreads and the paths it follows.

(2) The pelvic lymphatics in cancer of the cervix.

(3) Conclusions as to operative procedures.

12. Removal of the Uterus Per Vaginam: Hysterectomy, Vaginal Myomotomy or Morcellation.

Henry Parker Newman, Chicago

(1) Vaginal hysterectomy, performed in a limited number of cases early in the century, was abandoned on account of indifferent success until the advent of antiseptic surgery and improved hemostasis. Revived in 1878 by Czerny, it is given the preference in selected cases over the abdominal route by many operators. A comparison of technical methods is made and a description of the author's variations given. The most important of these is the replacing of the ligatures and retention clamps by the angiotribe, or pressure clamp for hemostasis of the broad ligament. The author's modification of the Tuffier-Thumin instrument. Mention is also made of the technique of Sippel, who opened into the ischio-rectal cavity by lateral incision between anus and tuber ischii and removed vagina and uterus unopened and in their normal relation. Another late modification is that of removing the pelvic lymphatic glands with the cancerous uterus, an operation analogous to the removal of the axillary glands in mammary carcinoma.

(2) Morcellation or vaginal myotomy, a procedure intended to reduce the size of sub-mucous, interstitial and even superitoneal fibroids, too large for removal in the ordinary way, has never become popular and is rarely selected by American operators except in the first or sub-mucous variety. It consists in taking away the growth piecemeal by cutting out wedges of tissue from the center and accessible portions until but a shell of structure remains, which collapses and so appreciably reduces the volume of the tumor. The idea seems to have originated with Emmet, but was not given prominence until it was brought forward by European operators in 1892. The technique is not complicated and is accomplished by means of the Museux traction forceps circular and sickle-shaped knife and tube tranchant of Doyen.

13. The Prevalence of Trachoma in the State of Illinois.

William H. Wilder, Chicago

(1) Epidemic character of trachoma. Endemic in certain localities. It is conveyed by contagion, but defective hygiene and atmospheric as well as telluric conditions may contribute to the spread of the disease.

(2) Very prevalent among certain nationalities, and where people are crowded together in small, ill-ventilated dwellings.

(3) Belief that trachoma is produced by a living cause, but the specific organism is not yet positively known. Course and results of the disease. Complications.

(4) A very considerable number of cases of blindness from trachoma.

(5) Large number of cases in the institutions of Illinois.

(6) The disease seems to be endemic in cer-

tain parts of the State, and is spread by reason of ignorance concerning it.

(7) Importance of disseminating the knowledge of its communicability and the means for its prevention.

(8) Economic considerations.

(9) Duties of the profession in regard to checking the disease by proper treatment and instruction.

Discussion opened by A. L. Adams, Jacksonville.

14. Purulent Ophthalmia of the New Born.

William O. Nance, Chicago

(1) Bacteriology.

(2) Importance of early diagnosis, and imperative necessity of prompt treatment.

(3) Efficiency of Crede's prophylactic treatment. Crede's method too infrequently employed in private practice.

(4) Essentials of successful management:

a. Skillful technique in eversion of eye-lids.

b. Intelligent and conscientious nursing.

c. Careful attention to patient's nutrition.

(5) Treatment:

a. Antiseptic flushing.

b. Applications.

c. Compresses.

d. Canthotomy.

e. Atropin in corneal involvement.

f. Restoratives, baths, massage, fresh air.

14—a. Electrolysis, the Only Successful Treatment in a Certain Variety of Granular Eyelids.

P. Dombrowski, Peoria

(1) There is a peculiar type of granular lids in which the ordinary methods of treatment fail.

(2) Characteristic features of this variety of granular lids.

(3) The cases under consideration were undoubtedly cases of granular lids. Diagnostic remarks.

(4) The classical treatment, continued for years, was ineffectual.

(5) Temporary improvement from chronic acid applications. Cure by electrolysis.

(6) Literature.

15. Differential Diagnosis of Ovarian Tumors.

E. M. Sutton, Peoria

(1) Choice of subject due to the frequency with which mistakes are made as discovered by the surgeon.

(2) Four cases illustrative of this fact.

(3) Differential diagnosis of Ovarian Tumors from pregnancy; from fibro-myomata uteri; carcinoma uteri; abdominal ascites; from other abdominal tumors in general; from malignant tumors of the ovary.

16. Gall Stones and Their Surgical Treatment.

Arthur Dean Bevan, Chicago

(1) Frequency.

(2) Etiology.

(3) Diagnosis:

a. Differential.

b. As to location of stone.

(4) Operative treatment and after treatment.

(5) Prognosis:

a. As to recovery from operation.

b. As to permanent recovery.

17. Surgical Cell Activity.

J. E. Coleman, Canton

(1) Argument against the tendency of the general practitioner to use little or no preparation of the patient to get the cells of the body in the best possible condition for the surgeon.

(2) The surgeon also gives little or no treatment to aid the recovery of the patient after operation.

(3) Influence of nerve stimulation and blood supply on cell activity.

(4) A study of cell activity in tuberculosis.

18. The Treatment of Prolapsus Recti.

A. E. Halstead, Chicago

(1) Prophylactic and medical. Particularly applicable to children. Regulation of bowels. Treatment of incipient rhachitis, etc., by proper diet and internal administration of tonics. In the milder cases, when prolapse has taken place, the external application of astringent lotions.

(2) By means of supports and trusses. Not to be recommended. Uncomfortable and inefficient.

(3) Massage and electricity. Of advantage in few selected cases.

(4) Operative. History of development of operative treatment of prolapse of rectum. Indications for, and choice of operation in individual cases. Of operative procedures, we have to consider:

a. Cauterization.

b. Ligation.

c. Plastic operations having for their object narrowing of the anal canal and the removal of a portion of the prolapsed tissue.

d. Amputation.

e. Suspension.

19. Rectal Fistula.

J. Rawson Pennington, Chicago

(1) Landmarks: Coccyx, perineum, anal quadrants and the bisecting transverse anal line.

(2) The importance of recognizing the conformation of fistula before attempting to treat it.

(3) In operating, especially on the so-called horse-shoe variety, preserve the contour of the anus and avoid incontinence of feces by not cutting the sphincter muscle.

(4) The importance of dividing the rectal sphincter at right angles when division is absolutely necessary.

(5) The use of rubber dressings.

20. Laceration of the Perineum with Prolapse of the Posterior Vaginal Wall and Rectum: Instrumental Delivery with Repair of the Parts.

A. C. Ragsdale, Metropolis

(1) History of an interesting case in which an operation was done for prolapse of the rectum and vaginal wall, and two weeks later a second operation upon the perineum on a patient who was pregnant at the time and who went to full term and was delivered with forceps without injury to the repaired parts.

(2) The interesting points are: The two operations under chloroform without ill effects on the pregnancy; the narrow pelvis, the forceps delivery without injury to the repaired parts.

Discussion opened by W. T. Sloan, Peoria.

21. Some Observations on the Surgical Pathology of Mastoid Diseases.

Norval H. Pierce, Chicago.

(1) External signs of purulent processes in the mastoid.

(2) Method of examining the mastoid region.

(3) Differential diagnosis between necrotic and carious processes, furunculosis, simple periostitis, etc.

(4) Pathology of acute and chronic suppurative process.

(5) Indications for operation in both classes of cases.

(6) Prognosis in cases operated on.

(7) Prognosis in cases not operated on.

(8) Choice of operation.

(9) Requirements.

(10) Methods.

(11) Accidents.

(12) Course of healing and after-treatment.

(13) Results.

Discussion opened by P. Dombrowski, Peoria.

23. Sequestration and Other Dermoids.

L. L. McArthur, Chicago

(1) Their development.

(2) Seats of predilection.

(3) Occasional traumatic origin.

(4) Importance of removal of entire secreting surface.

(5) Staining of same as an aid.

(6) Report of fifteen cases.

24. Cases Illustrating the Major Plastics of the Head and Neck.

Weller Van Hook, Chicago.

Cases will be presented to illustrate:

(1) A method of replacing large losses of skin, connective tissue and periosteum from the forehead and other parts of the head.

(2) Plastics of the nose; the correction of saddle nose by the transplantation of pediculated flaps of skin, connective tissue, periosteum, and bone from the forehead: The transplantation of skin to the nose by pediculated flaps from the arm.

(3) The plastics of the chin where extensive incisions have been required, skin being derived by collar incisions from the neck.

(4) Plastics of the neck:

a. Closure of large defects of skin in the mastoid region.

b. The closure of large defects in anterior regions of the neck by flaps supplied with pedicles, and derived from the chest or from the arm.

c. The principles involved in these operations.

25. The Operative Treatment of Saddle-Nose with Report of Two Illustrative Cases.

E. J. Senn, Chicago

(1) The importance of an external incision for direct operative treatment.

(2) Precautions necessary in applying ex-

ternal pressure for immobilization after correction of the deformity.

(3) The necessity of an osteo-plastic operation when there is an absence of an osseous support.

26. Tubercular Glands of the Neck.

Alex. Hugh Ferguson, Chicago

(1) Tubercular lymphadenitis. General remarks.

(2) Etiology. Infection. Manner of acute and chronic.

(3) Symptoms and signs. Various constitutional disturbances. Emaciation, pyrexia, etc. Enlargement of glands forming nodes, movable, slightly tender, periadenitis, skin involvement, formation of abscesses, ulceration, sinuses, etc.

(4) Diagnosis: Its differentiation from simple adenitis, specific infection (bubo), lymphadenoma, lympho-sarcoma, carcinoma, etc.

(5) Prognosis: When treated by palliative means, local and constitutional, and when radically dealt with.

(6) Pathology: Morbid changes in and around the gland. Cell infiltration caseation, breaking down with and without mixed infection; formation of sinuses, etc.

(7) Treatment: Palliative. Local. Rest of head and neck, application of drugs, etc.

(8) General. Constitutional treatment, change of climate, etc.

(9) Operative. Palliative. Intraglandular. Medication, lancing of abscesses, curetting sinuses, etc.

(10) Radical: Indications for complete eradication of the glands. Incision, manner of dissection. Structures to be avoided, drainage, dressings, results.

27. Surgical Intervention in Intestinal Perforation of Typhoid Fever.

George L. Eyster, Rock Island

(1) Operative measures are a life-saving procedure.

(2) The diagnostic indications of the occurrence of this accident.

(3) The selective time for surgical intervention.

(4) The operative technique.

Discussion opened by E. Wyllis Andrews, Chicago.

28. Treatment of Intestinal Fistula by Exclusion of the Bowel.

Carl Beck, Chicago

(1) History of exclusion of bowel.

(2) Physiological and experimental exclusion.

(3) Total and Partial Exclusion.

(4) Comparative value of the method with regard to older methods.

29. Kraurosis Vulvae.

William E. Schroeder, Chicago

(1) Etiology.

(2) Pathology. Its relation to carcinoma.

(3) Treatment.

30. Treatment of Abortion.

Charles B. Reed, Chicago

(1) Frequency of abortion; dangers, immediate and remote.

(2) Limitation of the term.

(3) Division of the subject for convenience and with reference to treatment.

(4) Treatment dependent upon etiology largely.

(5) Methods of treatment and indications.

31. Dilating Irrigations in the Treatment of Chronic Gonorrhoea, with Exhibition of a New Dilating Irrigator.

E. A. Fischkin, Chicago

(1) Pathologic anatomy of chronic gonorrhoea.

(2) Obstruction of Littre's glands the main cause of infiltration.

(3) Restoration of glandular function the main object of treatment.

(4) Inefficiency of plain irrigations.

(5) Instruments used.

(6) Advantages of the instrument.

32. The Deformities of Infantile Paralysis, Their Pathology and Treatment.

John L. Porter, Chicago

(1) The factor producing these deformities.

(2) Mechanism of more common varieties.

(3) Extent and character of muscular involvement.

(4) Methods of improving functions of muscles not entirely paralyzed.

(5) Mechanical aids in preventing and correcting deformities.

(6) Mechanical aids to locomotion.

(7) Limitation of mechanical treatment.

(8) The value of tenotomy followed by lengthening or shortening of tendon.

(9) The tendon transplantation, indications, methods and results.

(10) Arthrodesis, cases in which it is indicated; results to be obtained.

(11) Necessity for careful after-treatment following all operative procedures.

SECTION THREE.

"What Has Been Accomplished by Medical Legislation," by J. W. Pettit, M. D., Ottawa.

Synopsis: Brief History of medical legislation. Obstacles: Popular prejudice, professional apathy and impracticable methods. These can be overcome only by organization of profession. Direct effect of medical legislation. Suggestions as to future efforts.

"A Case in Medical Jurisprudence," by F. C. Winslow, M. D., Jacksonville.

Synopsis:

1. A case of marriage, one contracting party being insane, the other contracting party having no knowledge of his mental condition.

2. Application of sane party to courts for annulment of marriage contract granted, court holding that there never was a marriage, as one party being insane the statute was not fulfilled.

3. Prevention of marriage among degenerates with report of case.

"Potable Waters and Pure Waters," by R. W. Palmer, M. D., University of Illinois.

Synopsis:

Sources of potable water: Rain, streams, wells.

Sources of impurities: Harmless ingredients and dangerous contamination.

Why analysis should be made. What the analysis may indicate. Chemical analysis and biological examination. Significance of the data of an analysis. Interpretation of results. Necessity for complete information concerning source of sample. Topographical characteristics of Illinois and their bearing upon the purity of water supplies.

"The State Care of the Tuberculous Patients of the State," by John A. Robison, M. D., Chicago.

Synopsis:

1. The paternal duty of the State toward its inhabitants afflicted by disease.

2. The power delegated to Boards of Health, State, County and municipal, in preventing disease by hygienic and sanitary methods.

3. The teaching in public schools and universities of the causes and prevention of disease, especially tubercular.

4. The economic value to the State and the improvement of the health of communities.

5. The cost to the State.

"Etiology and Prophylaxis of Insanity," by F. H. Jenks, M. D., Elgin.

Synopsis:

1. Consideration of exciting causes.

2. Consideration of predisposing causes?

3. Can the exciting cause be overcome?

4. Can the predisposing cause be overcome?

"The Duty of the State in Regard to Tuberculosis," Address: Geo. W. Webster, M. D., Chicago.

Synopsis: The need of greater effort as shown by the present mortality as well as the encouraging results in other states and countries. This work should be in two directions—legislation and education.

The former should include a law for the establishment and maintenance of a state sanitarium for the tuberculous poor; a law providing for the correct report of all births and deaths; suitable legislation in regard to food supply, especially meat, milk and butter, and including inspection of cattle; also a law making the reporting of cases of tuberculosis compulsory.

The educational features of the campaign should include the better education of the profession, as well as the laity, in regard to the fact that it is a communicable, preventable disease, in which hygiene in all that this implies is a no less potent factor than infection; that it may be communicated by the respiratory or the digestive systems.

These things should be taught in the normal schools, and by teachers to all school children. The physicians should by means of lectures, or otherwise, educate the people.

The State Board of Health should send leaflets in all reported cases to the attending physician and to the family, informing them in regard to the nature of the disease and the precautions to be taken to prevent its spread to other members of the community.

SUPPLEMENTARY LIST.

The following is a list of those who have sent \$1.00 to the Legislative Committee since our last issue:

Those names marked with an asterisk are members of the State Medical Society.

One hundred and fifty-three physicians not members of the State Society have contributed to the Legislative fund. We hope that all these persons will become members of the State Society by sending in their application and fee to the treasurer.

- *C. Fenger, Chicago.
- *C. B. Johnson, Champaign.
- *John A. Hoffman, Pesotum.
- *Jos. I. Knoblanck, Metamora.
- Linda Krape Hutchins, Orangeville.
- *F. Wylie Nash, Big Rock.
- *R. W. Bishop, Chicago.
- *A. D. Taylor, Springfield.
- *W. W. Douglas, Hillsboro.
- W. R. Blackburn, Breeds.
- G. R. Blackstone, Table Grove.
- *J. E. Coleman, Canton.
- E. W. Reagan, Canton.
- *J. E. Sutton, Canton.
- W. S. Strode, Lewiston.
- C. D. Snively, Summum.
- *P. H. Stoops, Ipava.
- D. S. Ray, Cuba.
- *F. Henrotin, Chicago.
- *Jos. M. Trigg, Farmersville.
- *A. C. Corr, E. St. Louis.
- *Otis Johnson, Quincy.
- *Jas. L. Reat, Tuscola.
- W. T. Pulliam, Tuscola.
- Vermillion County Medical Society, \$15.00.
- *Duffield, H. T., Pittsfield.
- Sheetz, C. R., Freeport.
- Mease, D. C. L., Freeport.
- Burnes, R. J., Freeport.
- Fair, J. F., Freeport.
- Saucerman, J. W., Winslow.

MEMBERSHIP OF ILLINOIS STATE MEDICAL SOCIETY.

Giving name, address and date to which dues are paid:

- Abbott, W. C., 2666 N. Hermitage ave., Chicago, May 1, 1901.
- Abt, I. A., 4326 Vincennes ave., Chicago, May 1, 1901.
- Adams, A. L., Jacksonville, May 1, 1901.
- Adams, W. W., Atkinson, May 1, 1901.
- Akester, Jno., Farina, Ill.
- Aldrich, D. W., Galesburg, delinquent.
- Allaben, J. E., Rockford, May 1, 1901.
- Allen, C. A. Virden, May 1, 1901.
- Allen, E. S., Arcola, June 1, 1901.
- Allen, Ethan, Sheldon, November 27, 1901.
- Allison, J. W., Essex, delinquent.
- Allison, W. R., Peoria, November 14, 1901.
- Allport, Frank, 32 State st., Chicago, May 1, 1901.
- Allport, Henry W., 92 State st., Chicago, May 1, 1901.

- Alsop, Thos. E., Carlyle, May 1, 1901.
- Anderson, F. M., Decatur, May 1, 1902.
- Andrews, Edmund, Chicago, exempt—life member.
- Andrews, E. Wyllys, Chicago, delinquent.
- Andrews, F. T., 100 State st., Chicago, delinquent.
- Andrews, S. C., Rockford, delinquent.
- Anthony, Frank, Sterling, May 1, 1901.
- Anthony, Henry G., 465 Dearborn ave., Chicago, February 20, 1902.
- Babb, Helen, Springfield, May 1, 1901.
- Babcock, Robt. H., Chicago, May 1, 1901.
- Babcock, O. B., Springfield, delinquent.
- Bacon, C. S., 426 Center st., Chicago, May 1, 1901.
- Bacon, Joseph B., Macomb, May 1, 1901.
- Bailey, M. A., Elliot, May 1, 1901.
- Baker, E. F., Jacksonville, June 1, 1901.
- Bali, A. W., Rushville, May 1, 1901.
- Ball, R. M. C., Monmouth, delinquent.
- Baldwin, L. Blake, Col. Mem. Bldg., Chicago, delinquent.
- Barger, Robert N., Hopedale, May 1, 1901.
- Barker, A. W., Springfield, delinquent.
- Barlow, C., Robinson, May 1, 1901.
- Barnes, Samuel, Fairbury, May 1, 1901.
- Barnes, William, Decatur, May 1, 1901.
- Barnett, J. B., Lincoln, May 1, 1901.
- Barr, Wm. Allen, 100 State st., Chicago, June 1, 1902.
- Barrett, Channing W., 433 LaSalle ave., Chicago, June 1, 1902.
- Bartells, H. W. F., Bensenville, May 1, 1901.
- Bartlett, A. T., Virden, exempt—life member.
- Bartlett, E. P., Springfield, May 1, 1901.
- Barto, J. H., Waverly, November 27, 1901.
- Bass, George E., 9901 Ewings ave., Chicago, June 1, 1902.
- Raughman, J. A., Neoga, May 1, 1901.
- Baum, W. L., 103 State st., Chicago, May 1, 1901.
- Baxter, A. J., Astoria, May 1, 1901.
- Beal, Albert Milton, Moline, May 1, 1901.
- Beard, Chas. H., Chicago, delinquent.
- Beard, I. J., Godfrey, May 1, 1901.
- Bedford, Jas. R., Verona, May 1, 1901.
- Beirne, H. P., Quincy, May 1, 1901.
- Bell, W. H., Decatur, May 1, 1902.
- Bench, E. M., Galena, June 1, 1901.
- Bergison, John, Ottawa, April 27, 1901.
- Bernhardi, Carl, Rock Island, May 1, 1901.
- Bernreuter, Edw., Mt. Olive, May 1, 1901.
- Berry, R. D., Springfield, May 1, 1901.
- Best, John E., Arlington Heights, May 1, 1901.
- Bevan, Arthur Dean, Chicago, May 1, 1901.
- Billings, Frank, 35 22d st., Chicago, May 1, 1901.
- Binkley, Jno. T., 34 Washington st., Chicago, delinquent.
- Bishop, R. W., Chicago, delinquent.
- Bishop, S. S., 103 State st., Chicago, May 1, 1901.
- Black, Carl E., Jacksonville, May 1, 1901.
- Black, J. N., Clayton, May 1, 1901.
- Blackburn, M. H., Dover, May 1, 1901.
- Blackman, C. S., Hicks, delinquent.
- Blackwelder, J. F., Litchfield, March 23, 1902.
- Bleuler, C. A., Carlinville, May 1, 1901.
- Bley, George, Beardstown, May 1, 1901.
- Bley, Walter C., Beardstown, May 1, 1902.
- Boal, Robert, Lacon, exempt—life member.
- Boggs, W. R., Macon, May 1, 1901.

- Bonar, Barnet L., Streator, May 1, 1901.
 Bondurant, A. A., Cairo, May 1, 1901.
 Boone, H. B., Chandlerville, delinquent.
 Boshell, H. N., Melvin, delinquent.
 Bouffleur, Albert I., Chicago, May 1, 1901.
 Bowcock, C. M., Springfield, May 1, 1901.
 Bower, Geo. Stewart, Ransom, delinquent.
 Bower, R. W., Sheridan, May 1, 1901.
 Bowers, W. C., Decatur, May 1, 1901.
 Bowman, L. M., Alton, delinquent.
 Boyles, J. M., Flora, delinquent.
 Boyles, J. W., Clay City, delinquent.
 Bozarth, J. W., Mt. Pulaski, May 1, 1901.
 Bradley, M. M., Chatham, May 1, 1901.
 Bradley, W. J., Coal City, May 1, 1901.
 Bradway, C. F., Abingdon, delinquent.
 Brannon, L., Joliet, delinquent.
 Bratz, F. D., Moweaqua, June 1, 1901.
 Braunsworth, Anna M., 3119 S. Park ave., Chicago, May 1, 1901.
 Brayshaw, Jos., Berlin, May 1, 1901.
 Brayton, Sarah, H., Evanston, May 1, 1901.
 Breckenbridge, S. L., Riverside, May 1, 1901.
 Bremner, H. A., Ashton, May 1, 1901.
 Brennecke, H. A., Aurora, June 1, 1902.
 Bridges, W. T., Stonington, March 1, 1901.
 Brill, J. A., 428 Milwaukee ave., Chicago, May 1, 1901.
 Brittin, A. L., Athens, May 1, 1901.
 Brobst, C. H., Peoria, May 1, 1901.
 Broell, Albert C., 131 Freemont st., Chicago, June 1, 1902.
 Brooks, H. J., 100 State st., Elgin, February 20, 1902.
 Brophy, T. W., Chicago, delinquent.
 Brower, Daniel R., Venetian Bldg., Chicago, May 1, 1901.
 Brown, C. B., Sycamore, May 1, 1901.
 Brown, Everett J., Decatur, May 1, 1901.
 Brown, H. B., Lincoln, May 1, 1901.
 Brown, Moreau R., 34 Washington st., Chicago, May 1, 1901.
 Brown, Sanger, 100 State st., Chicago, May 1, 1901.
 Buck, H. B., Springfield, May 1, 1901.
 Bucknam, A. F., Warren, June 1, 1901.
 Buffington, C. G., Litchfield, Mach 23, 1902.
 Burdick, A. S., Chicago, May 1, 1901.
 Burke, Chas. O., Atlanta, May 1, 1901.
 Burke, P. M., LaSalle, May 1, 1901.
 Burnham, A. F., Jacksonville, May 1, 1901.
 Burres, W. F., Urbana, June 1, 1902.
 Burrows, Thos. W., Ottawa, delinquent.
 Butler, Geo. F., Alma, Mich., May 1, 1901.
 Butterfield, E. H., Ottawa, May 1, 1901.
 Buxton, Wm. E., Samsville, May 1, 1902.
 Byford, Henry T., Reliance bldg., Chicago, May 1, 1901.
 Byrne, John H., 690 W. Monroe st., Chicago, May 1, 1901.
 Caldwell, W. S., Freeport, exempt—life member.
 Calhoun, W. J., St. Charles, May 1, 1901.
 Camerer, John D., Kinmundy, May 1, 1901.
 Campbell, A. E., Clinton, delinquent.
 Campbell, H. C., Jacksonville, May 1, 1901.
 Campbell, R. R., 204 Dearborn st., Chicago, May 1, 1902.
 Campbell, J. Y., Paxton, delinquent.
 Cargill, C. W., Mason City, May 1, 1901.
 Carriel, H. B., Jacksonville, November 16, 1901.
 Carroll, C. L., Taylorville, May 1, 1901.
 Carter, C. C., Rock Island, May 1, 1901.
 Carter, C. W., Aledo, May 1, 1901.
 Carter, J. M. G., Waukegan, May 1, 1901.
 Cassellberry, W. E., Chicago, May 1, 1901.
 Cassidy, George P., Shawneetown, May 1, 1901.
 Cassingham, Marshall, Gardner, delinquent.
 Catherwood, T. L., Shelbyville, October 31, 1901.
 Catlin, Edward P., Rockford, May 1, 1901.
 Catlin, S. R., Rockford, May 1, 1901.
 Center, Chas. D., Quincy, May 1, 1901.
 Champion, J. V., Mansfield, May 1, 1901.
 Chapin, Chas. E., Bloomington, June 1, 1902.
 Chapin, H. A., Whitehall, May 1, 1901.
 Chapman, Andrew L., Carlock, delinquent.
 Chapman, H. W., Whitehall, May 1, 1901.
 Chenoweth, C., Decatur, May 1, 1901.
 Chenoweth, W. J., Decatur, May 1, 1901.
 Chrisman, W. D., LaFayette, delinquent.
 Christopher, W. S., 508 Dearborn ave., Chicago, May 1, 1902.
 Christy, Robt. J., Quincy, May 1, 1901.
 Church, A., Venetian Bldg., Chicago, May 1, 1901.
 Clark, Sumner, Effingham, May 1, 1901.
 Clement, F. A., Greenfield, December 27, 1901.
 Clements, Geo. E., Springfield, June 1, 1902.
 Clotfelter, G. A., Hillsboro, May 1, 1901.
 Cody, J. M., Tremont, May 1, 1901.
 Coe, C. W., Stonington, November 22, 1901.
 Cole, W. C., Jacksonville, May 1, 1901.
 Coleman, J. E., Canton, May 1, 1901.
 Collins, C. U., Peoria, November 18, 1901.
 Colt, J. D., Litchfield, May 1, 1901.
 Conibear, Wm. H., Morton, May 1, 1901.
 Conner, J. J., Pana, May 1, 1901.
 Cook, E. P., Mendota (1864) May 1, 1901—life member.
 Cook, Wm. H., Coffeen, May 1, 1901.
 Coolidge, H. S., 103 State st., Chicago, June 1, 1902.
 Coppel, F. M., Havana, delinquent.
 Corr, A. C., Carlinville, delinquent.
 Corr, L. H., Carlinville, May 1, 1901.
 Cotton, A. C., 677 Jackson blvd., Chicago, May 1, 1901.
 Coultas, R. J., Mattoon, May 1, 1901.
 Coulter, J. Homer, Col. Mem. Bldg., Chicago, May 1, 1901.
 Covey, John E., Lexington, May 1, 1901.
 Cowan, G. R., Girard, May 1, 1901.
 Cox, J. Neil, N. Henderson, delinquent.
 Cozad, James, Reynolds, exempt—life member.
 Craig, A. L., Aledo, May 1, 1901.
 Craig, George G., Rock Island, May 1, 1901.
 Crane, F. Marion, Pittsfield, May 1, 1901.
 Crawford, Napoleon B., Eureka, delinquent.
 Crocker, G. L., Springfield, May 1, 1901.
 Cromwell, Annie McF., Jacksonville, September 28, 1901.
 Crouch, E. L., Jacksonville, May 1, 1901.
 Crow, J. T., Carrollton (1878)—life member.
 Curtis, R. M., Union, delinquent.
 Dahl, Svenning, 822 N. Western ave. Chicago, June 1, 1902.
 Dalton, W. B., Scottville, May 1, 1901.
 Danforth, I. N., Chicago, May 1, 1901.
 Davidson, T. W., Abingdon, delinquent.
 Davis, Charles Gilbert, 31 Washington st., Chicago, June 1, 1902.

- Davis, Elias, Peoria, delinquent.
 Davis, Effa V., 508 W. Adams st., Chicago, May 1, 1901.
 Davis, N. S., Chicago, exempt—life member.
 Davis, N. S., Jr., Chicago, May 1, 1901.
 Davison, J. B., Moline, exempt—life member.
 Day, J. A., Winchester, May 1, 1901.
 Day, W. C., Winchester, May 1, 1901.
 Deal, John, Riverton, May 1, 1901.
 Decourcy, Jas. O., E. St. Louis, delinquent.
 DeGraff, Elmer Bert, Rushville, May 1, 1901.
 DeLee, J. B., 3624 Prairie ave., Chicago, May 1, 1901.
 Denby, J. P. Carlinville, May 1, 1901.
 Dennis, Geo. J., Chicago, May 1, 1901.
 De Silva, Jos. D., Rock Island, January 3, 1902.
 Detweiler, Edwin S., LaGrange, May 1, 1901.
 DeVeney, Chas. C., 2542 Indiana ave., Chicago, May 1, 1901.
 Dewey, Frank J., 100 State st., Chicago, delinquent.
 Dewey, Richard, Wauwatosa, Wis., May 1, 1901.
 Dickerman, E. T., 103 State st., Chicago, May 1, 1901.
 Dickerson, J. H., Taylorville, May 1, 1901.
 Dickinson, Frances, 70 State st., Chicago, May 1, 1901.
 Dicks, T. A., Broadlands, May 1, 1901.
 Dicus, George A., Streator, May 1, 1901.
 Dicus, J. F., Streator, May 1, 1901.
 Diffenbacher, P. L., Havana, May 1, 1901.
 Diller, T. S., Roberts, May 1, 1901.
 Dinges, H. A., Red Bud, May 1, 1901.
 Dixon, J. N., Springfield, May 1, 1901.
 Dixon, W. A., Decatur, May 1, 1901.
 Dixon, W. E., Sidell, May 1, 1901.
 Dobson, J. W., Arthur (Moultrie).
 Dodds, J. C., Champaign, May 1, 1901.
 Dodson, John M., 568 Washington blvd., Chicago, June 1, 1902.
 Doepfner, Karl, 581 Orchard st., Chicago, May 1, 1901.
 Doering, Edw. J., 2458 Indiana ave., Chicago, May 1, 1901.
 Doherty, David J., 582 La Salle ave., Chicago, June 1, 1902.
 Doolittle, Wm. H., Woodstock, May 1, 1901.
 Dougall, William, Joliet, May 1, 1901.
 Douglass, D. T., Colfax, May 1, 1901.
 Douglass, W. W., Hillsboro, May 1, 1901.
 Downey, B. J., Ottawa, May 1, 1901.
 Drennan, D. A., Springfield, delinquent.
 Dubs, Rudolph S., 92 State st., Chicago, May 1, 1901.
 Dudley, E. C., 1617 Indiana ave., Chicago, May 1901.
 Duffield, H. T., Pittsfield, December 4, 1901.
 Du Hadway, C., Jerseyville, delinquent.
 Duncan, J. M., Pawnee, May 1, 1901.
 Dunn, L. D., Moline delinquent.
 Eade, T. M., Stockton, June 1, 1901.
 Eads, Coleman J., Oquawka, May 1, 1901.
 Earle, A. M., Abingdon, delinquent.
 Earle, Frank B., 903 W. Monroe, Chicago, January 8, 1902.
 Easley, Wm. T., Greenville, May 1, 1901.
 Eberspacher, F. J., Pana, May 1, 1901.
 Eckard, E. M., Peoria, May 1, 1901.
 Eddy, W. J., Shelbyville, May 1, 1901.
 Edlen, E. A., Moline, May 1, 1901.
 Edmiston, D. W., Clinton, May 1, 1901.
 Edwards, A. R., 2818 Indiana ave., Chicago, May 1, 1901.
 Egan, J. A., Springfield, May 1, 1901.
 Egan, J. C., Hanover, May 1, 1901.
 Eidson, Henry A., Willow Hill, May 1, 1901.
 Eisendrath, D. N., 3125 Michigan ave., Chicago, May 1, 1902.
 Eldridge, F. P., Greenview, delinquent.
 Elion, Carl J., Altona, May 1, 1901.
 Elliott, A. R., Auditorium, Chicago, delinquent.
 Enos, E. F., Hospital, November 18, 1901.
 Ensign, W. O., Rutland, exempt—life member.
 Essick, W. W., Murphysboro, May 1, 1901.
 Euans, B. L., Watseka, June 1, 1902.
 Evans, C. W., 341 Fulton st., Chicago, May 1, 1901.
 Evans, W. A., 103 State st., Chicago, May 1, 1901.
 Everett, Edward S., Lacon, May 1, 1901.
 Eyster, George L., Rock Island, May 1, 1901.
 Faber, Paul J., 70 E. Madison, Chicago, June 1, 1902.
 Fairbrother, H. C., E. St. Louis, May 1, 1901.
 Farley, W. K., Waterman, May 1, 1901.
 Favill, Henry B., 138 Pine st., Chicago, May 1, 1901.
 Fenger, C., 269 La Salle ave., Chicago, May 1, 1901.
 Ferguson, Alex. H., Chicago, delinquent.
 Ferguson, H. M., Morris, May 1, 1902.
 Fernald, W. J., Frankfort, Ind., delinquent.
 Ferrell, H. V., Carterville, May 1, 1901.
 Fiengenbaum, E. W., Edwardsville, May 1, 1901.
 Fink, J. W., Hillsboro, exempt—life member.
 Firestone, Jos., Freeport, May 1, 1901.
 Fish, W. H., Baylis, May 1, 1901.
 Fischer, C. J. C., Carlinville, May 1, 1901.
 Fischkin, E. A., 1218 Milwaukee ave., Chicago, June 1, 1902.
 Fisher J. C., Petersburg, May 1, 1901.
 Fisher, L. A., Greenup, May 1, 1901.
 Fisher, Waldo, Alton May 1, 1901.
 Fitch, W. H., Rockford, May 1, 1901.
 Fitts, Albert A., Batavia, delinquent.
 Fletcher, Joseph, Mendon, May 1, 1901.
 Fogg, C. E., Wenona, May 1, 1901.
 Foster, Addison H., 779 W. Monroe, Chicago, June 1, 1902.
 Fowler, H. M., Scales Mound, June 1, 1901.
 Frank, Jacob, 17 Lincoln ave., Chicago, May 1, 1901.
 Franken, J. G., Chandlerville May 1, 1901.
 Freeman, J. A., Millington, May 1, 1901.
 French, D., Lawrenceville, May 1, 1901.
 Frick, Anders, 366 E. Division st., Chicago, June 1, 1902.
 Friend, W. M., Sumner, May 1, 1901.
 Fringer, George W., Pana, May 1, 1901.
 Fringer, W. R., Rockford, May 1, 1901.
 Frost, L. A., Jacksonville, May 1, 1901.
 Fulgham, J. H., Lebanon, May 1, 1902.
 Fuller, William, 4707 Calumet ave., Chicago, June 1, 1902.
 Fulwiler, J. W., Bloomington, June 1, 1902.
 Furlong, M., 246 E. 47th st., Chicago, June 1, 1902.
 Futterer, Gustav, 716 Fullerton ave., Chicago.
 Gaffner, Theo., Trenton, delinquent.
 Galbraith, C. M., Carbondale, 47th U. S. I., P. I.
 Gardiner, John H., Mahomet, May 1, 1901.

- Garrison, Harriet E., Dixon, May 1, 1901.
 Gary, I. Clark, 2184 Archer ave., Chicago, May 1, 1901.
 Gates, Wm. S., Ravenswood, delinquent.
 Geddy, W. H., Ohlman, May 1, 1901.
 Gehrman, Adolph, 4420 Langley ave., Chicago, May 1, 1901.
 Gehrman, M. C., Quincy, May 1, 1901.
 German, W. H., Morgan Park, delinquent.
 Gibson, C. P., Hoosier, May 1, 1901.
 Giles, H. W., Wataga, May 1, 1901.
 Gillispie, T. W., Lonestar, May 1, 1901.
 Gobbe, E. T., Earlville.
 Godfrey, H. T., Galena, June 1, 1901.
 Goldspohn, A., 519 Cleveland ave., Chicago, May 1, 1901.
 Goodell, F. W., Effingham, May 1, 1901.
 Goodell, Wm. L., Effingham, May 1, 1901.
 Gordon, John H., Pocahontas, May 1, 1901.
 Gordon, R. E., El Paso, delinquent.
 Gordon, W. P., Carlyle, May 1, 1901.
 Graham, D. W., 672 W. Monroe st., Chicago, May 1, 1901.
 Graves, B. C., Dalton City.
 Grayson, W. H., Madison, May 1, 1901.
 Green, Albert, Rockford, May 1, 1901.
 Green, F. C., Chicago, May 1, 1901.
 Gregory, L. L., 514 Evanston ave., Chicago, May 1, 1901.
 Griffith, B. B., Springfield, May 1, 1901.
 Grigsby, Wm. E., Blandinsville, May 1, 1901.
 Grim, A., Franklin Grove, May 1, 1901.
 Grinstead, W. F., Cairo, May 1, 1901.
 Gunn, H. F., Galena, June 1, 1901.
 Guthrie, H. R., Sparta, May 1, 1901.
 Guthrie, W. E., Bloomington, May 1, 1901.
 Halbert, W. A., Salisbury, May 1, 1901.
 Hagler, A. Lee, Springfield, delinquent.
 Hagler, E. E., Springfield, May 1, 1901.
 Hale, Jas. I., Anna, May 1, 1902.
 Hall, Joseph, Westfield, May 1, 1901.
 Hall, S. C., Omaha, delinquent.
 Hall, Chas. W., Kewanee, May 1, 1901.
 Halstead, A. E., Col. Mem. bldg., Chicago, May 1, 1901.
 Hamilton, H., Bethany, June 1, 1901.
 Hammond, J. D., 11 Congress st., Chicago, June 1, 1902.
 Hand, Henry W., Whitehall, May 1, 1901.
 Hanna, Wm. McM., Lisbon, May 1, 1901.
 Haight, Allen T., Chicago, May 1, 1901.
 Haines, Geo. M., Durand, May 1, 1901.
 Hairgrove, J. W., Jacksonville, May 1, 1901.
 Hardy, H. T., Kaneville, May 1, 1901.
 Hargan, J. F., Mound City, May 1, 1901.
 Harvey, L. J., Griggsville, May 1, 1901.
 Harsha, W. M., 103 State st., Chicago, May 1, 1901.
 Harmon, J. C., Rantoul, May 1, 1901.
 Harris, M. L., 612 Reliance bldg., Chicago, May 1, 1901.
 Harter, J. F., Stronghurst, May 1, 1901.
 Haskell, W. A., Alton, May 1, 1901.
 Hatch, Henry, Quincy.
 Hatfield, M. P., 100 State st., Chicago.
 Hawks, J. D., Elmwood.
 Haynes, Baxter, Hurricane, May 1, 1901.
 Haynes, Moses, Coffeen.
 Hayes, Harry M., Peoria, May 1, 1902.
 Hayward, Chas. E., Cropsy, delinquent.
 Heise, Ellen H., Canton, delinquent.
 Heisz, Emily J., 6118 Monroe ave., Chicago, November 13, 1901.
 Heckard, M. O., 1276 W. Madison ave., Chicago, June 1, 1902.
 Hektoen, Ludwig, Chicago, May 1, 1901.
 Hench, J. B., Hindsdale, September 28, 1901.
 Hendrick, S. O., Henry, May 1, 1901.
 Henrotin, F., 353 La Salle st., Chicago, May 1, 1901.
 Henry, Roland H., Peotone, May 1, 1901.
 Hensley, J. W., Peoria, May 1, 1901.
 Hequembourg, J. E., 512 Fullerton ave., Chicago, May 1, 1901.
 Herrick, Jas. B., 751 Warren ave., Chicago, May 1, 1901.
 Herriott, E. L., Jacksonville, exempt—life member.
 Herzog, M., 174 E Chicago ave., Chicago, May 1, 1901.
 Hester, Wm. Weir, 3640 Cottage Grove ave., Chicago, June 1, 1901.
 Hill, G. E., Girard, May 1, 1901.
 Hill, H. C., Springfield, May 1, 1901.
 Hill, Wm., Bloomington, exempt—life member.
 Hole, Burton W., Tallula, May 1, 1901.
 Hobart, J. R., Ashmore, May 1, 1901.
 Hoffman, J. A., Pesotum, May 1, 1901.
 Hoit, J. D. C., Elmwood, May 1, 1901.
 Hollister, Jno. H., Chicago (1863) May 1, 1901 life member.
 Holmes, Bayard, 103 State st., Chicago, delinquent.
 Holmes, Nathan, Delavan, May 1, 1901.
 Horine, T. A., Brighton, December 13, 1901.
 Hollowbush, J. P., Rock Island, May 1, 1901.
 Hotz, F. C., Venetian bldg., Chicago, May 1, 1901.
 Hooper, Henry, 541 N. State st., Chicago, May 1, 1901.
 Hoornbeck, N. B., Youngstown, May 1, 1901.
 Hoover, W. K., Lovington, June 1, 1901.
 Hopkins, J. N., Burnt Prairie, May 1, 1901.
 Hopkins, S. R., Springfield, December 4, 1901.
 Hopping, O. P., Havana, delinquent.
 Horrell, Charles B., Galesburg, May 1, 1901.
 Horwitz, Sandor, Peoria, May 1, 1901.
 Howard, H. C., Champaign, June 1, 1902.
 Howland, Edw. D., Lockport, May 1, 1901.
 Huber, J., Pana, May 1, 1901.
 Hudson, Benj., Scottville, May 1, 1901.
 Hughes, N. J., Waverly, May 1, 1901.
 Hull, M. D., Bloomington, May 1, 1901.
 Humphrey, W. D., Virginia, May 1, 1901.
 Hunt, Florence, Lexington Hotel, Chicago, delinquent.
 Hunt, C. C., Dixon, exempt—life member.
 Hurst, S. T., Greenvew, May 1, 1901.
 Hutchins, Wm. Albert, Orangeville, May 1, 1901.
 Hutchins, Linda K., Orangeville.
 Hutton, Wm., Elizabeth, June 1, 1901.
 Hyde, J. N., Chicago, Reliance bldg., Chicago, May 1, 1901.
 Ingalls, E. Fletcher, 34 Washington st., Chicago, May 1, 1901.
 Isham, Geo. S., 34 Washington st., Chicago, May 1, 1902.
 James, A. C., Springfield, May 1, 1901.
 Jaques, W. K., 4316 Greenwood ave., Chicago, June 4, 1902.
 Jay, Milton, Col. Mem. bldg., Chicago, delinquent.

- Jenks, F. H., Elgin, May 1, 1901.
 Jenks, D. S., Plano, exempt—life member.
 Jennings, C. A., Delavan, delinquent.
 Johnson, C. B., Champaign, May 1, 1901.
 Johnson, Carl G., Galesburg, May 1, 1901.
 Johnson, Geo. W., Dunning, delinquent.
 Johnson, Frank S., 2521 Prairie ave., Chicago, May 1, 1901.
 Johnson, Otis, Quincy, May 1, 1901.
 Johnstone, Stuart, 34 Washington st., Chicago.
 Jones, Herbert C., Decatur, May 1, 1901.
 Jones, Leroy, Hoopston, May 1, 1901.
 Jones, S. J., 100 State st., Chicago, exempt—life member.
 Jones, W. S., Redmon, May 1, 1901.
 Jump, D. W., Plainfield, May 1, 1901.
 Kanne, A. J., Peoria, May 1, 1901.
 Kaylor, T. D., Barry, May 1, 1901.
 Keefer, J. F., Sterling, May 1, 1901.
 Keefer, Jane Reed, Sterling, May 1, 1901.
 Kelly, M. W., Joliet, May 1, 1901.
 Kelley, J. W., Springfield, May 1, 1901.
 Keller, Wm., Princeton, May 1, 1901.
 Kelley, M. T., Springfield.
 Keller, U. S. G., Warren, June 1, 1901.
 Kenagy, C. H., Scales Mound, June 1, 1901.
 Kennalley, J. S., Easton, May 1, 1901.
 Kerr, Charles, Springfield, May 1, 1901.
 Kerr, E. D., Brunswick, delinquent.
 Kerr, R. A., Peoria, May 1, 1901.
 Kewley, J. R., 100 State st., Chicago, May 1, 1901.
 Kingsley, V. C. T., Danville, May 1, 1901.
 Kinkead, A. G., Carlinville, May 1, 1901.
 Kinnery, C. W., Allenville, May 1, 1902.
 Kirby, W. H., Chestnut, May 1, 1901.
 Knapp, Alfred A., Brimfield, May 1, 1901.
 Knodle, E. A., Beardstown, delinquent.
 Knappenberger, H., Macomb, May 1, 1901.
 Knoblanck, J. I., Metamora, May 1, 1901.
 Kratz, Edwin A., Champaign, May 1, 1901.
 Kreider, Geo. N., Springfield, May 1, 1902.
 Kreisel, Fillip, 1006 Stewart bldg., Chicago, May 1, 1901.
 Kuflewski, W. A., 724 W. 18th st., Chicago, June 1, 1902.
 Kuh, Edwin J., 3125 Michigan ave., Chicago, delinquent.
 Kuh, Sidney, 103 State st., Chicago, May 1, 1901.
 Kunz, Sylvan, 420 Center st., Chicago, May 1, 1901.
 Landers, J. R., Cadwell, June 1, 1901.
 Landis, B. F., Tiskilwa, May 1, 1901.
 Landon, D. M., Burton, May 1, 1901.
 Langdon, W. O., Springfield, May 1, 1901.
 Law, D. H., Dixon, May 1, 1901.
 Lee, A. M., Carbondale, December, 14, 1901.
 Lee, Julius H., 116 N. Center ave., Chicago, June 1, 1902.
 Leeds, H. M., Allendale, May 1, 1901.
 Leeds, L. L., Lincoln, May 1, 1901.
 Legier, John T., Keensburg, delinquent.
 Leland, Kimball W., Utica, delinquent.
 Le Matty, J. B., New Philadelphia, May 1, 1901.
 Lemen, Edw. C., Upper Alton, May 1, 1901.
 Leming, John, 3541 Indiana ave., Chicago, May 1, 1901.
 Lemke, A. F., Reliance bldg., Chicago, delinquent.
 Le Sage, Phillip, Joliet, May 1, 1901.
 Lewis, Denslow, 5100 Madison st., Chicago, May 1, 1901.
 Lewis, Henry F., 4426 Lake ave., Chicago, May 1, 1901.
 Lewis, R. E., Macomb, May 1, 1901.
 Lewis, U. S., East Dubuque, November 16, 1901.
 Lindsay, V. T., Springfield, May 1, 1901.
 Linn, E. Cadwell, Monmouth, May 1, 1901.
 Littlefield, H. H., Beardstown, exempt—life member.
 Livesay, T. N., Patoka, May 1, 1901.
 Lobdell, Effie, 169 S. Clark, Chicago, delinquent.
 Lodor, Chas. H., 3136 Indiana ave., Chicago, May 1, 1902.
 Loesch, G. E., Lake City, June 1, 1901.
 Long, H. H., Orion, May 1, 1901.
 Loomis, E. Beach, 133 Clark st., Chicago, May 1, 1901.
 Lord, F. H., Plano, exempt—life member.
 Loveweller, C. H., 6058 Wentworth ave., Chicago, delinquent.
 Lovell, F. B., Gibson City, May 1, 1901.
 Lowe, F. O., Kewanee, May 1, 1901.
 Lowrie, Jas. L., Lincoln, May 1, 1901.
 Lucas, Emma J., Peoria, November 27, 1902.
 Luehr, Edw., 9141 Houston st., Chicago, November 17, 1901.
 Lydston, G. Frank, 100 State st., Chicago, May 1, 1901.
 Lyman, H. M., 200 Ashland boul., Chicago, delinquent.
 Mackey, A. N., Aledo, May 1, 1901.
 MacMartin, D. R., 77 Jackson blvd., Chicago, May 1, 1901.
 Main, R. H., Barry, May 1, 1901.
 Maley, W. H., Galesburg.
 Mammen, E., Bloomington, December, 15, 1901.
 Manley, P. G., Mt. Carmel, May 1, 1901.
 Marcy, M. S., Peoria, May 1, 1901.
 Markley, P. L., Rockford, delinquent.
 Marshall, Jas. A., Pontiac, May 1, 1901.
 Martin, F. H., Chicago, 34 Washington st., May 1, 1901.
 Martin, W. S., Tuscola, May 1, 1901.
 Mason, Jas. S., Rantoul, May 1, 1901.
 Mather, Henry H., 7847 Normal ave., Auburn Park, May 1, 1901.
 Matson, W. F., Monticello, May 1, 1901.
 Matthei, Philip H., 57 Wisconsin st., Chicago, May 1, 1901.
 Matthews, J. Palmer, Carlinville, May 1, 1901.
 Matthews, J. P., Carlinville, exempt—life member.
 Matthews, Sam'l. A., 4704 Kenwood ave., Chicago, delinquent.
 Mattison, Fitch C. E., Pasadena, California.
 May, S. R., Mt. Zion, May 1, 1901.
 Mayo, E. L., De Kalb, delinquent.
 Maxon, O. F., Springfield, June 1, 1902.
 Maxwell, J. B., Mt. Carmel, May 1, 1901.
 Melaik, Hattie B., Kewanee, May 1, 1901.
 Mellish, E. J., 103 Staté st., Chicago, May 1, 1901.
 Melton, W. A., Warrensburg, May 1, 1901.
 Mergler, Marie J., 2930 Indiana ave., Chicago, May 1, 1901.
 Meyer, Albert W., Bloomington, June 1, 1902.
 Meyerowitz, M., 179 W. 12th st., Chicago, May 1, 1901.
 Middleton, A. B., Pontiac, delinquent.
 Miles, Walter, Chandlerville, May 1, 1901.

- Miller, A. D., Sullivan, May 1, 1902.
 Miller, DeLaskie, Chicago, May 1, 1901.
 Miller, Allen J., Edington, May 1, 1901.
 Miller, D. W., Gilman, May 1, 1901.
 Miller, E. P., Sullivan, June 1, 1901.
 Miller, G. E., Hanover, June 1, 1901.
 Miller, J. H., Pana, May 1, 1901.
 Miller, J. L., 35 E. 22nd. st., Chicago, delinquent.
 Miller, Katherine, Lincoln, May 1, 1901.
 Miller, R. B., Millington, delinquent.
 Milligan, G. W., Edinburg, May 1, 1901.
 Milligan, Josephine, Jacksonville, May 1, 1902.
 Million, J. L., Springfield, May 1, 1901.
 Miner, Ellen, Champaign, May 1, 1901.
 Miner, John, Winchester, May 1, 1901.
 Mitchell, E. L., Monmouth, May 1, 1901.
 Mitchell, H. C., Carbondale, May 1, 1901.
 Mitchell, R. J., Girard, exempt—life member.
 Mitten, Frank J., Colfax, May 1, 1901.
 Moffett, W. T., Blue Mound, May 1, 1901.
 Montgomery, A. B., Reynolds, February 7, 1902.
 Montgomery, E. B., Quincy, May 1, 1901.
 Montgomery, F. H., 100 State st., Chicago, May 1, 1901.
 Montgomery, J. T., Charleston.
 Montgomery, W. T., 34 Washington st., Chicago, May 1, 1901.
 Morgan, E. A., Decatur, May 1, 1901.
 Morgan, J. W., Moline, delinquent.
 Morgan, Wm. E., 3000 Michigan ave., Chicago, May 1, 1901.
 Morris, Ewing V. D., Galesburg, May 1, 1901.
 Morton, J. S., Vernon, May 1, 1901.
 Moyer, Harold N., Columbus Mem. Bld., Chicago, May 1, 1901.
 Moyer, M. L., Hillsboro, May 1, 1901.
 Mudd, W. A., Athens, May 1, 1901.
 Munson, S. E., Springfield, May 1, 1901.
 Murfin, J. W., Vernon, May 1, 1901.
 Murfin, Warren W., Petoka, May 1, 1901.
 Murphy, E. S., Dixon, May 1, 1901.
 Murphy, J. B., Reliance bldg., Chicago, May 1, 1901.
 Murphy, T. C., Enterprise, Miss., May 1, 1901.
 Myers, J. F., Rock Island, May 1, 1901.
 Myers, Wm. F., Coal Valley, delinquent.
 McAnally, John T., Carbondale, May 1, 1901.
 McArthur, L. L., 100 State st., Chicago, May 1, 1901.
 McClain, B. T., Atwood, delinquent.
 McClanahan, J. M., Kirkwood, May 1, 1901.
 McClanahan, J. P., Alexis, May 1, 1901.
 McClanahan, Wm. S., Woodhull, May 1, 1901.
 McClelland, R. A., Yorkville, May 1, 1901.
 McClelland, R. E., Williamsville, May 1, 1901.
 McClelland, S. E., Decatur, May 1, 1901.
 McClelland, W. E., Beason, May 1, 1901.
 McComas, G. N., New Canton, February 7, 1902.
 McCord, T. C., Paris, June 1, 1901.
 McCormick, N. K., Normal, May 1, 1901.
 McCoy, H. W., Golconda, delinquent.
 McCullough, J. R., 35 Park ave., Chicago, May 1, 1901.
 McDonald, J. T., Taylorville, May 1, 1901.
 McIntosh, A. I., Allendale, May 1, 1901.
 McIntosh, Jesse H., DeWitt, May 1, 1901.
 McIntyre, C. I., 834 Grand ave., Chicago, delinquent.
 McKennan, H., Paris, May 1, 1901.
 McKenzie, W. R., Chester, May 1, 1901.
 McKinney, J. G., Barry, exempt—life member.
 McKinney, T. J., Gifford, May 1, 1901.
 McLaughlin, W. K., Jacksonville, May 1, 1901.
 McLean, W. H., East St. Louis, May 1, 1901.
 McMann, W. W., Gardner, exempt—life member.
 McMennamy, B. F., Bethany, May 1, 1901.
 McMurray, R. J., Linn, May 1, 1901.
 McPherson, C. Walter, Hazelhurst, May 1, 1901.
 McTaggart, T. A., Pawnee, May 1, 1901.
 McWilliams, S. A., Martinville, exempt—life member.
 Nance, Willis O., Venetian bldg., Chicago, May 1, 1901.
 Nash, J. Wylie, Big Rock, May 1, 1901.
 Nason, Mm. A., Algonquin, May 1, 1901.
 Nelms, J. N., Taylorville, May 1, 1901.
 Nelson, C. S., Springfield, May 1, 1901.
 Nelson, Dan'l T., 2400 Indiana ave., Chicago, May 1, 1901.
 Nesbitt, G. W., Sycamore, May 1, 1901.
 Nevill, F. A., Meredosia, May 1, 1901.
 Newcomb, W. K., Champaign, May 1, 1901.
 Newcomer, Irving, Petersburg, May 1, 1901.
 Newcomer, J. W., Petersburg, May 1, 1901.
 Newman, H. P., Venetian bldg., Chicago, May 1, 1901.
 Nickerson, L. H. A., Quincy, May 1, 1901.
 Niergarth, Wm., Pekin, October 3, 1901.
 Nixon, M. G., Columbia, May 1, 1901.
 Noble, C. M., Bloomington, June 1, 1902.
 Noble, W. L., 324W. Madison st., Chicago, May 1, 1901.
 Norbury, F. P., Jacksonville, May 1, 1901.
 Norris, A. L., Farmer City, delinquent.
 Novak, Frank J., 733 W. 18th st., Chicago, May 1, 1901.
 Ochser, Edw. H., 710 Sedgwick st., Chicago, May 1, 1901.
 O'Hara, F. S., Springfield, May 1, 1901.
 Oliver, E. W., Wenona, delinquent.
 Oliver, J. H., Kewanee, May 1, 1901.
 O'Malley, W. H., Kinsman, May 1, 1901.
 Orner, C. T., Bloomington, June 1, 1902.
 Ottis, D. M., Springfield, May 1, 1901.
 Oughton, Chas. M., 5410 Jefferson st., Chicago, May 1, 1901.
 Owens, D. W., Hersman, May 1, 1901.
 Owens, Hattie M., Princeton, delinquent.
 Owens, J. E., 1806 Michigan blvd., Chicago, life member.
 Owen, W. R., Sublette, May 1, 1901.
 Oyler, P. H., Mt. Pulaski, May 1, 1901.
 Palmer, Chas. A., Princeton, May 1, 1901.
 Park, Cephas, Oquawka, exempt—life member.
 Parke, C. R., Bloomington, delinquent.
 Parkhurst, F. J., Danvers, May 1, 1901.
 Parrish, M. P., Decatur, January 25, 1901.
 Patchen, C. C., Beardstown, May 1, 1902.
 Patrick, Hugh T., 34 Washington st., Chicago, May 1, 1901.
 Patton, J. A., Rush Med. Col., Chicago, May 1, 1901.
 Peairs, G. M., Joliet, May 1, 1901.
 Pennington, J. Rawson, 103 State st., Chicago, May 1, 1901.
 Percy, Jas. F., Galesburg, May 1, 1901.
 Perisho, E. E., Ancona, May 1, 1901.
 Peterson, Reuben, 103 State st., Chicago, delinquent.
 Pettit, Jas. Wiley, Ottawa, May 1, 1901.

- Phillips, A. C., Apple River, June 1, 1901.
 Pierce, J. R., Cornland, May 1, 1901.
 Pitner, F. R., Clay City, May 1, 1901.
 Pitner, T. J., Jacksonville, exempt—life member.
 Plummer, Amzi S., Peoria, May 1, 1902.
 Plummer, S. C., 4304 Lake ave., Chicago, December 6, 1901.
 Podstata, V., Hospital, December 17, 1901.
 Pogue, Joseph, Edwardsville, May 1, 1901.
 Porter, D. W., Blue Mound, May 1, 1901.
 Porter, John Lincoln, 103 State st., Chicago, June 1, 1902.
 Postle, James M., Hinckley, May 1, 1901.
 Pratz, F. D., Moweaqua, June 1, 1902.
 Prather, J. E., Glasgow, May 1, 1901.
 Prescott, H. V., Dallas City, delinquent.
 Price, Cyrus E., Eaton, May 1, 1901.
 Prince, A. E., Springfield, May 1, 1901.
 Prince, J. A., Springfield, May 1, 1901.
 Prince, W. C., New Holland, May 1, 1901.
 Provins, G. B., Ottawa, May 1, 1901.
 Putney, Wm. G., Serena, delinquent.
 Putney, C. W., School, delinquent.
 Pusey, Wm. Allen, Col. Mem. bldg., Chicago, May 1, 1901.
 Quales, Niles T., 52 Fowler st., Chicago, May 1, 1901.
 Quine, Wm. E., 3160 Indiana ave., Chicago, May 1, 1901.
 Raab, E. P., Belleville, May 1, 1901.
 Ragain, G. T., Neoga, delinquent.
 Rabe, W. L., Dwight, May 1, 1901.
 Reasoner, R. W., Colorado Springs, Colo., May 1, 1901.
 Reat, J. L., Tuscola, May 1, 1901.
 Redwine, J. W., Whitehall, May 1, 1901.
 Reed, C. B., 103 State st., Chicago, May 1, 1901.
 Reedy, E. S., Bloomington, June 1, 1902.
 Rendleman, J. W., Walsh bldg., East St. Louis, May 1, 1901.
 Reynolds, A. R., Venetian bldg., Chicago, May 1, 1901.
 Rhodes, J. E., 34 Washington st., Chicago, May 1, 1901.
 Rice, Delia M., Galesburg, delinquent.
 Rice, Edw. E., Allison, May 1, 1901.
 Rice, John H., Quincy, May 1, 1901.
 Richings, Henry, Rockford, May 1, 1901.
 Rideout, W. J., Freeport, May 1, 1901.
 Ries, Emil, 100 State st., Chicago, May 1, 1901.
 Riese, B. L., 215 Wabash ave., Chicago, May 1, 1901.
 Rivard, G. J., Assumption, May 1, 1901.
 Robbins, Joseph, Quincy, delinquent.
 Robbins, M. M., Aurora, delinquent.
 Roberts, Roy, Brooklyn.
 Robinson, F. C., Wyand, exempt—life member.
 Robison, John A., 297 Ashland st., Chicago, May 1, 1901.
 Rockey, A. P., Assumption, May 1, 1901.
 Rooney, Abby Fox, 4008 Delmar boul., St. Louis, May 1, 1901.
 Roskoten, O. J., Peoria, May 1, 1901.
 Ross, G. W., Carrollton, May 1, 1901.
 Ross, John, Pontiac.
 Root, Eliza, H., 489 Monroe st., Chicago, May 1, 1901.
 Rothget, H. D., East Lynn, March 26, 1902.
 Rourke, S. Ellen, Lincoln.
 Rumpf, W. H., Chicago, 4720 Kenwood ave., May 1, 1901.
 Ryan, Lawrence R., Galesburg, May 1, 1901.
 Ryan, Walter, Springfield, May 1, 1901.
 St. John, John Leonard, 1003 Col. Mem. bldg., Chicago, May 1, 1901.
 Sala, E. M., 322 19th st., Rock Island, May 1, 1901.
 Salisbury, J. H., 982 W. Adams st., Chicago, May 1, 1901.
 Salisbury, S. S., Tolono, June 1, 1902.
 Salter, Allen, Lena, May 1, 1901.
 Sandberg, Karl E. M., 622 N. Hoyne ave., Chicago, January 4, 1902.
 Sanders, J. W., Decatur, May 1, 1901.
 Sargent, A. M., Lincoln, delinquent.
 Sargent, E. E., Leroy, delinquent.
 Schenck, J., Mt. Carmel, May 1, 1901.
 Scherer, Elmer A., East St. Louis, May 1, 1901.
 Schirmer, Gustav, 625 W. Taylor st., Chicago, September 28, 1901.
 Schirmir, Alfred, 547 Blue Island ave., Chicago, February 7, 1902.
 Schmidt, F. W., Riverdale, May 1, 1901.
 Schmidt, J. W., Riverdale, May 1, 1901.
 Schmidt, L. E., Schiller bldg., Chicago, May 1, 1901.
 Schmidt, O. L., Schiller bldg., Chicago, May 1, 1901.
 Schmitz, Peter, Leonore, May 1, 1901.
 Schroeder, W. E., 103 State st., Chicago, May 1, 1901.
 Seeley, W. J., Red Bud, delinquent.
 Senn, E. J., 100 State st., Chicago, May 1, 1901.
 Senn, Nicholas, 532 Dearborn ave., Chicago, May 1, 1901.
 Sennott, John S., Waterloo, May 1, 1901.
 Servoss, A. G., Havana, May 1, 1901.
 Sharp, W. W., New Douglass, May 1, 1901.
 Shallenberger, W. E., Canton, May 1, 1901.
 Sherrick, C., Monmouth, May 1, 1901.
 Shipp, F. J., Springfield, May 1, 1901.
 Short, W. T., Grove City, May 1, 1901.
 Shreck, John A., Cameron, May 1, 1901.
 Shronts, C. F., Hospital, November 8, 1901.
 Shutt, Marguerite, Springfield, May 1, 1901.
 Simpson, J. P., Palmer, February 18, 1902.
 Simmons, Geo. A., 61 Market st., Chicago, May 1, 1901.
 Sippy, B. W., 143 Oakwood blvd., Chicago, May 1, 1901.
 Skinner, Cynthia, Monmouth, May 1, 1901.
 Sloan, W. T., Peoria, May 1, 1901.
 Small, Archie R., 3131 Indiana ave., Chicago, May 1, 1901.
 Small, C. P., 5727 Madison ave., Chicago.
 Smith, Chas. E., Palmyra, delinquent.
 Smith, C. F., Kankakee, May 1, 1901.
 Smith, D. G., Elizabeth, June 1, 1901.
 Smith, H. D., Lovington, June 1, 1901.
 Smith, H. W., Roodhouse, delinquent.
 Smith, I. C., Stockton, June 1, 1901.
 Smith, J. Whitefield, Bloomington, delinquent.
 Smith, Lee, Bloomington, May 1, 1901.
 Smith, W. A., Galena, June 1, 1901.
 Smith, Wm. H. C., Godfrey, May 1, 1901.
 Snell, Myron W., Litchfield, May 1, 1901.
 Snow, F. H., Chadwick, May 1, 1901.
 Southwick, G. E., Beamington, May 1, 1901.
 Sparling, W. H., Moweaqua, May 1, 1901.
 Spear, I. W., Mason City, exempt—life member.

- Spear, L. E., Shirley, May 1, 1901.
 Speed, J. N., Rushville, May 1, 1901.
 Spicer, C. R., Taylorville, October 31, 1901.
 Staff, Ed. P., Ramsey, delinquent.
 Stafford, T. J., Stockton, June 1, 1901.
 Stanton, S. C., 7 Cedar st., Chicago, delinquent.
 Standley, Anna B., Alexis, May 1, 1901.
 Standley, J. W., Alexis, May 1, 1901.
 Staples, M. W., Grove City, May 1, 1901.
 Starke, C. V., Rockford, May 1, 1901.
 Starkel, Chas. H., Belleville, May 1, 1901.
 Starkey, H. M., 3300 Indiana ave., Chicago, May 1, 1901.
 Starkweather, R. E., 5151 Carroll ave., Chicago, May 1, 1901.
 Stealy, J. H., Freeport, May 1, 1901.
 Steele, D. A. K., 103 State st., Chicago, May 1, 1901.
 Stedman, W. E., Sullivan, new Spec. 2.00.
 Stehman, H. B., Presby. Hosp., Chicago, delinquent.
 Stephenson, B. M., Peoria, May 1, 1901.
 Strain, Hugh S., Nokomis, delinquent.
 Sterrett, Wm. S., Marseilles, May 1, 1901.
 Stetler, T. H., Paw Paw, May 1, 1901.
 Stoops, Perry H., Ipava, May 1, 1901.
 Stowell, J. H., 193 State st., Chicago, May 1, 1901.
 Stremmel, F. C., Macomb, May 1, 1901.
 Stringfield, C. P., 300 31st st., Chicago, May 1, 1901.
 Strueh, Carl, 464 Belden ave., Chicago, October 1, 1901.
 Studer, Jos., Peoria May 1, 1901.
 Sudduth, W. X., 100 State st., Chicago, May 1, 1901.
 Sullivan, J. C., Cairo, May 1, 1901.
 Sullivan, T. J., 4709 Michigan ave., Chicago.
 Sutton, Emerson M., Peoria, May 1, 1901.
 Sutton, Jas. E., Canton, May 1, 1901.
 Taphorn, G., Alton, June 1, 1902.
 Taylor, A. D., Williamsville, May 1, 1901.
 Taylor, E. K. M., Leroy, May 1, 1901.
 Taylor, J. B., Bloomington, May 1, 1901.
 Taylor, J. L., Libertyville, May 1, 1901.
 Taylor, L. C., Springfield, May 1, 1901.
 Taylor, Percy, Springfield, November, 27, 1901.
 Thomas, Abraham L., 4424 Indiana ave., Chicago, delinquent.
 Thomas, C. D., Peoria, May 1, 1901.
 Thompson, L. G., Lacon, exempt—life member.
 Thompson, P. C., Jacksonville, May 1, 1901.
 Thompson, Theodore, Shelbyville, October 31, 1900.
 Thompson, T. W., Oskaloosa, May 1, 1901.
 Tieken, J. D., Piper City, May 1, 1901.
 Tivnen, Richard J., 302 Garfield blvd., Chicago, February 1, 1902.
 Todd, J. F., 2447 Prairie ave., Chicago, delinquent.
 Tope, J. W., Oak Park, May 1, 1902.
 Trigg, Joe M., Farmerville, May 1, 1901.
 Troutt, J. J., Nashville, May 1, 1901.
 True, Charles, Kankakee, May 1, 1901.
 Turner, John W., Homer, delinquent.
 Tuttle, H. H., Springfield, January 1, 1902.
 Tweddale, Jas., Washburn, May 1, 1901.
 Tyler, Jno. H., Clinton, May 1, 1901.
 Tyler, W. R., San Jose, delinquent.
 Tyrrell, G. M., Stockton, June 1, 1901.
 Uran, Benj. F., Kankakee, May 1, 1901.
 Vadakin, J. H., Bethany, June 1, 1901.
 Vance, N. N., Bement, delinquent.
 Van Hook, Weller, 103 State st., Chicago, May 1, 1901.
 Van Horne, A. K., Jerseyville, May 1, 1901.
 Vertrees, C. M., Murrayville, May 1, 1901.
 Wade, C. A., 709 Jackson blvd., Chicago, January 8, 1902.
 Wagner, Carl, 74 Lincoln ave., Chicago, May 1, 1901.
 Wagner, J. R., Newman.
 Walker, J. B., Effingham, May 1, 1901.
 Walker, S. J., 394 E. Chicago ave., Chicago, May 1, 1901.
 Walker, Stanley Ross, Chebanse, May 1, 1901.
 Walker, Wm. P., Mason City, May 1, 1902.
 Wall, A. S., Champaign, May 1, 1901.
 Wallace, F. E., Monmouth, May 1, 1901.
 Wallace, Jeannette C., Peoria, February 19, 1902.
 Walsh, W. E., Morris, delinquent.
 Ward, M. T., Toulon, September 22, 1901.
 Warner, A. L., Venetian bldg., Chicago, May 1, 1901.
 Washburn, W. E., Kewanee, May 1, 1901.
 Watkins, T. J., 1800 Indiana ave., Chicago, May 1, 1901.
 Watts, E. L., Triumph, May 1, 1901.
 Weaver, Geo. H., 535 Washington blvd., Chicago, May 1, 1901.
 Webb, C. C., Charleston, June 1, 1901.
 Weber, S. L., Reliance bldg., Chicago, May 1, 1901.
 Webster, G. W., 70 State st., Chicago, May 1, 1901.
 Webster, John C., 946 Jackson blvd., Chicago, May 1, 1901.
 Webster, J. Clarence, Reliance bldg., Chicago, May 1, 1901.
 Webster, J. R., Monmouth, exempt—life member.
 Weidner, Morris R., Dalton Station, Cook Co., May 1, 1901.
 Weir, John, West Union, Clark Co., May 1, 1901.
 Weir, L. J., West York, Crawford Co., May 1, 1901.
 Weis, E. W., Ottawa, May 1, 1901.
 Weise, J. W., Manchester, May 1, 1901.
 Werner, F. W., Joliet, May 1, 1901.
 Wescott, C. D., 551 Jackson blvd., Chicago, May 1, 1901.
 Wesley, Allen A., 3102 State st., Chicago, November 16, 1901.
 Westgate, Letitia A., Sycamore, May 1, 1901.
 Whalen, Charles J., 34 Washington st., Chicago, June 1, 1902.
 Wheeler, Elliott H., Murphysboro, May 1, 1901.
 White, A. P., Danville, May 1, 1901.
 White, J. L., Bloomington, exempt—life member.
 White, Solon C., Somonauk, May 1, 1901.
 Whitfield, G. W., 215 Wabash ave., Chicago, May 1, 1901.
 Whitley, J. D., Petersburg, May 1, 1901.
 Whitlock, J. T., Dix, May 1, 1901.
 Whitten, H. H., Peoria, May 1, 1901.
 Whitten, Thos. J., Nokomis, May 1, 1901.
 Wiener, Alex. C., Reliance bldg., Chicago, May 1, 1901.
 Wiggins, J. L., East St. Louis, delinquent since 1898.
 Wilcox, G. G., Seneca, May 1, 1901.

Wilcox, J. M., Clinton, delinquent.
 Wilcox, Saml. H., Shattuck, Clinton Co., May 1, 1901.
 Wilder, W. H., 103 State st., Chicago, May 1, 1901.
 Wilhelmy, A. F., Decatur, May 1, 1901.
 Wilhelmy, C. F., East St. Louis, May 1, 1901.
 Wilhoit, D. L., Martinsville, June 1, 1902.
 Wilkerson, G. E., Alton, May 1, 1901.
 Wilkinson, C. E., Monticello, May 1, 1901.
 Will, O. B., Peoria, May 1, 1901.
 Willard, Simon, Mound City, delinquent.
 Willetts, A. P., Keithsburg, delinquent since 1898.
 Williams, Chas. H., 15 Arlington st., Boston, Mass., May 1, 1901.
 Williams, Jno. F., 427 Center st., Chicago, May 1, 1901.
 Williams, W. W., Quincy, May 1, 1901.
 Williamson, G. L., Homer, May 1, 1901.
 Williamson, M. F., Joliet, May 1, 1901.
 Wills, John, Beecher City, Effingham Co., May 1, 1901.
 Wilson, B. F., Cairo, delinquent.
 Wilson, R. M., Lincoln, May 1, 1901.
 Wilson, W. G., Shelbyville, May 1, 1901.
 Windette, R. A., Aurora, delinquent.
 Wing, Elbert, 4822 Luke ave., Chicago, May 1, 1901.
 Womack, J. A., Karbers Ridge, May 1, 1901.
 Wood, C. A., 103 E. Adams st., Chicago, May 1, 1901.
 Wood, C. Martin, Decatur, May 1, 1901.
 Wood, Will C., Decatur, May 1, 1901.
 Woodruff, H. W., Joliet, May 1, 1901.
 Woodruff, T. A., 103 E. Adams st., Chicago, May 1, 1901.
 Woodworth, P. M., 1246 N. Cark st., Chicago, May 1, 1901.
 Worthley, H. S., Elwood, Will Co., May 1, 1901.
 Wright, John, Clinton, exempt—life member.
 Wright, W. K., Taylorville, May 1, 1901.
 Wylie, S. M., Paxton, May 1, 1901.
 Yolton, J. S., Bloomington, June 1, 1902.
 Young, J. B., Golconda, delinquent.
 Young, W. A., Springfield, May 1, 1901.
 Zeit, F. R., N. W. Univ., Chicago, November 22, 1901.

Marriages, Deaths, Change of Address

MARRIAGES.

Dr. Edward H. Abbott and Miss Ethelyn Wells of Elgin, April 31.
 Dr. J. Harvey Lyon and Mrs. Ella H. Gordon of Chicago, April 7.
 Dr. J. Ulysses Grim and Miss Juanita Forrester of Chicago, April 11.
 Dr. Cassius C. Rogers and Miss Rena Belle Richards of Chicago, April 16.
 Dr. Alex. C. Soper, Jr., and Miss Bertha Georgine Dunlap, April 20.
 Dr. William Thompson of Chicago, and Miss Anna Caruth Hill of Boston, April 25.

DEATHS.

(Furnished by the State Board of Health.)
 Maughs, G. M. B., in St. Louis, Missouri, March 23d.

McCord, J. S., at Iowa City, Iowa, March 30th.
 Medill, W. W., at Denver, Colorado, March 14th.
 Rosecrance, James E., in New Milford, April 6th.
 Roberts, Frank W., at Logan, March 29th.
 Stewart, James T., in Peoria, April 12th.
 Steffens, Joseph W., in Chicago, February 2d.
 Williams, George W., in Aurora, March 23d.
 Watson, Colon C., in Nunda, March 28th.

CHANGES OF ADDRESS.

(Furnished by the State Board of Health.)

CHANGES IN CHICAGO.

Archer, Isaac J., 100 State street to 59 State street.
 Dodson, John M., 100 State street to 34 Washington street.
 Dern, Henry J., 1531 Belmont avenue to corner 88th and Mackinaw streets.
 Louis, Isaac S., 145 36th street to 4658 State street.
 Myers, E. M., Mercy Hospital to corner 26th street and Calumet avenue.
 Sterl, Alexander, 100 State street to 360 Blue Island avenue.
 Senn, Nicholas, 532 Dearborn avenue to 100 State street.
 Worley, W. H., Hahnemann Hospital to 2814 Groveland avenue.

CHANGES FROM CHICAGO.

Beebe, Leslie W., to Oak Park.
 Blount, Anna E., to Oak Park.
 Breckinridge, Stephen L., to Riverside.
 Childs, James E., to Blue Island.
 Johnstone, Mariam S., to Evanston.
 Lewis, Grace M., to Wheaton.
 McEwen, Ernest L., to Evanston.
 McEwen, Mary G., to Evanston.
 Medaris, Anna, to Chicago Heights.
 Norris, Harry C., to Winnetka.
 Olsen, Richard D., to Lombard.
 Parson, F. H. B., to Blue Island.
 Rosenberry, Alvin J., to Oak Park.
 Saunders, James, to Glen Ellyn.
 Stayt, C. B., to Harvey.
 Tyson, George F. M., to Evanston.
 Vandre, C. A., to Altamont.
 Weischelt, C. V. A., to Barrington.
 Whitefield, Geo. W., to Evanston.
 Young, D. Webster, to Paris.

CHANGES TO CHICAGO.

Fisher, Charles E., to corner Lake avenue and 53d street.
 Hutchins, Hannah G., to 834 W. Monroe street.
 Kelsey, Jane M., Lemont, to 4633 Evans avenue.
 Moldenhaur, Gustav H., Des Plaines, to 418 W. Chicago avenue.
 Rogers, Margaret, Oak Park, to Dunning.
 Schussler, Walter R., Orland, to 614 Englewood avenue.
 Stubinger, Geo. L., Lemont, to 1321 Wrightwood avenue.
 Von Bernauer, Julius, to 334 North East avenue.

CHANGES FROM ILLINOIS.

Alpers, H. F., Aviston to St. Louis, Missouri.
 Bailey, R. Hiram, Trilla to Gainesville, Texas.

Bassett, Howard W., Oak Park to Richmond, Virginia.
 Bolton, W. D., Clinton to Kansas City, Mo.
 Bower, Dora M., Carthage to York, Nebraska.
 Boyer, J. S., Brocton to ———
 Burkhardt, Charles F., Watson to ———
 Camp, Ella, Lemont to Iowa.
 Cleysten, Dirk, Jr., South Holland to ———
 Chittenden, Wm. J., Newton to Arkansas.
 Dearborn, Robert T., Riverside to Wisconsin.
 Downs, Myron L., Evanston to Europe.
 Dunlevy, G. Calder, Oak Park to Evansville, Ind.
 Dill, Joseph M., Jr., Paris to ———
 Doutrick, Harry, Grand View to Kentucky.
 Drewry, Henry N., Altamont to Missouri.
 Edmondson, G. W., Mattoon to Indiana.
 Eckles, W. F., Carthage to York, Nebraska.
 Freeman, Elmer B., Mattoon to ———
 Felts, Columbus H., Chrisman to Texas.
 Fish, Wm. D., Wheaton to ———
 Goodrich, Harrietta F. W., Evanston to ———
 Griffin, Byron W., Arlington Heights to Riffe, Colo.
 Guthrie, J. F., Beecher City to Colorado.
 Garrison, Elver, Greenup to ———
 Gillham, C. W., Warsaw to Wyaconda, Mo.
 Gelzer, Thos. L., Morton Park to ———
 Hodson, Wm. H., Mattoon to ———
 Hess, Wm. L., Palestine to St. Louis, Mo.
 Henry, Clifford E., Augusta to Los Angeles, Cal.
 Hunt, T. B., Warsaw to St. Louis, Mo.
 Hawkins, Levi, Newton to ———
 Hemphill, N. H., Assumption to ———
 Ivatts, Edgar R., Evanston to England.
 Kirk, James M., Evanston to California.
 Loughlin, Willet H., Arlington Heights to Iowa.
 Luedde, Wm. H., Warsaw to St. Louis, Mo.
 Metcalfe, B. F., Diona to ———
 McGregor, Catherine M., Evanston to ———
 Miller, Edward P., Oak Park to ———
 Miller, Jay D., Oak Park to ———
 McKinley, L. D., Effingham to ———
 Miller, Hattie I., Downers Grove to ———
 McIlrath, J. Thos., Olga to Arkansas.
 Miller, John R., Elvaston to ———
 Oglesby, Jas. V., Farmer City to ———
 Putman, Harrison C., Matton to ———
 Pickett, Emeline E., Harvey to New York.
 Parker, Chas. R., Thackery to ———
 Feery, Margaret E., Carthage to Monticello, Mo.
 Raymond, Wm. C., Evanston to London, Eng.
 Richardson, Eugene, Neoga to Oklahama.
 Roseberry, Francis M., Colusa to Keokuk, Iowa.
 Russell, James G., Dallas City to New York, N. Y.
 Rucker, Wm. C., Clinton to ———
 Sanborn, Jos. H., Breese to ———
 Strode, Allen B., Isabel to ———
 Shank, Wm. L., Effingham to ———
 Steele, Geo. A., Wheaton to Niles, Mich.
 Stone, Wm. G., Belvidere to ———
 Stephens, C. P., Loogootee to Colorado.
 Shippey, Orland P., Plymouth to Denver, Colo.
 Seal, Frank E., North Harvey to Indiana.
 Smith, Herbert H., Harvey to New York.
 Spearman, F. S., La Grange to ———
 Thompson, Nathan P., Huey to St. Louis, Mo.
 Welsch, John A., Keyesport to Missouri.
 Welsh, Prudence M., Trenton to ———

Waltman, Perry, Trilla to ———
 Wood, Chas. M., Diona to ———
 West, Eugene G., Effingham to ———
 Williams, Robert, Carthage to Minnesota.
 Wire, Geo. E., Evanston to Columbus, Ohio.
 Worley, H. F., Bentley to ———

CHANGES TO ILLINOIS.

Bloomfield, Robert G., to Trilla.
 Dodge, Harold E., to Franklin Park.
 Dunham, Frank, to Robinson.
 Green, Wilbur F., to Evanston.
 Greer, Albert E., to St. Paul.
 Higbee, Frank O., to Hinsdale.
 Heitz, J. W., to St. Peter.
 Jardarola, Luigi S., to Chicago Heights.
 Kimery, Henry A., to Ashmore.
 McLain, James H., to Bureau.
 Meirink, Bernard J., to Germantown.
 Nichols, C. L., to La Grange.
 Peak, W. J., Florida to Oakland.
 Webster, Emil H., to Evanston.
 Welch, John H., to Beecher City.
 Whitefort, Wm. J., to St. Peter.

CHANGES IN ILLINOIS.

Achard, H. J., Schaumburg to Roselle.
 Axline, Clarence E., Woodberry to Woodburn.
 Bechtold, Adolph G., Breese to Freeburg.
 Barr, Dorwin D., Bloomington to Weldon.
 Bates, C. C., Neoga to Paris.
 Berns, Peter C. Jr., Bible Grove to Sainte Marie.
 Berns, Simon P., Newton to Willow Hill.
 Clendenen, Irving, Maywood to La Grange.
 Cockran, C. Green, Hazel Dell to Greenup.
 Fischer, Ferdinand, Germantown to Bartelso.
 Goodnow, Leon L., Chicago Heights to Elgin.
 Greer, Geo., St. Paul to Vandallia.
 Greer, A. P., Sandusky to Elco.
 Gross, Daniel W., Glencoe to Monica.
 Guss, Wm. C., Mattoon to Janesville.
 Handley, Chas. A., Isabel to Brocton.
 Johnson, Wm. L., Macedonia to Akin.
 Jones, Wm. A., Greenup to Jewett.
 Kelly, John W., Augusta to Quincy.
 Lichtenwalter, W. H. L., Clarksburg to Beecher City.
 McKinnie, P. L., Orion to Evanston.
 May, Floyd B., Elsay to Fayette.
 McClane, Frank E., Mount Vernon to Carthage.
 McClure, Leonard D., Carthage to Adrian.
 Medley, John W., Bloomington to Disco.
 Martin, Lewis, Willow Hill to Rosehill.
 Nicolay, John W., Midland City to Minier.
 Nicolay, N. Florence, Midland City to Minier.
 Pace, J. T., Carlyle to Breese.
 Parker, Howard, Metcalf to Edgar.
 Pinkstaff, J. T., Birds to Greenup.
 Pickles, Tom, Anna to Moscow.
 Proctor, Geo. R., Coleta to Sterling.
 Rowe, Mark, Paris to Redmon.
 Roberts, R. B., Plymouth to Brooklyn.
 Seigfried, H. D., Bentley to Denver.
 Shannon, James N., Dolton Station to Lansing.
 Smith, W. K., Galena to La Harpe.
 Tunison, Ward C., Manchester to White Hall.
 Weber, J. C., Newton to Clay City.
 Welch, Charles, Ramsey to Beecher City.
 Wilcox, Simon S., Charleston to Hutton.
 Williamson, J. G., La Grange to Hinsdale.
 Williams, Joseph S., Casey to Walpole.

CALENDAR OF MEDICAL SOCIETIES.

City.	President.	Secretary.	Time and Place of Meeting.
Alton Medical Society.....	W. A. Haskell, Alton.....	P. W. Beckman, Alton.....	1st Thursday of each month
Chicago Pediatric Society.....	A. C. Cotton, Chicago.....	F. S. Churchill, Chicago.....	Monthly
Chicago Society of Internal Medicine.....	John A. Robinson, Chicago.....	Ed. F. Wells, Chicago.....	1st Friday of every month Oct. to June
Chicago Surgical Society.....	John E. Owens, Chicago.....	D. N. Elsenrath, Chicago.....	Quarterly in connection with Chi. Med. Soc.
Chicago Laryngological Society.....	W. E. Casselberry, Chicago.....	John L. Porter, Chicago.....	Monthly, except July and August
Chicago Orthopaedic Society.....	Frederic C. Coolidge, Chicago.....	J. G. Klerman, Chicago.....	2d Friday of each month
Chicago Academy of Medicine.....	W. L. Baum, Chicago.....	S. C. Plummer, 4305 Lake St., Chicago.....	1st Friday of each month
Chicago Bohemian Medical Society.....	Chas. Stulik, Chicago.....	W. J. Dvorak, Chicago.....	Every Wednesday evening
Chicago Medical Society.....	J. H. Stowell, Chicago.....	George H. Weaver, Chicago.....	2nd Monday of each month
Chicago Pathological Society.....	Ludvig Hektoen, Chicago.....	Wm. H. Rumpf, Chicago.....	2nd Friday of each month
Chicago Gynecological Society.....	Thomas J. Watkins, Chicago.....	C. P. Pickard, Chicago.....	2nd Tuesday of each month
Chicago Ophthalmological & Otorologic Soc.....	Lyman Ware, Chicago.....	Sydney Kuhn, Chicago.....	No regular meeting
Chicago Neurological Society.....	Richard Dwyer, Chicago.....	J. H. Stowell, 103 State St., Chicago.....	Quarterly
Demonstrator's Association of Chicago.....	Danslow Lewis, Chicago.....	M. L. Harris, Chicago.....	2nd Monday of each month
Decatur Medical Society.....	H. A. Hadley, Chicago.....	W. S. Watt, E. St. Louis.....	Elks Hall, last Thursday eve, each month
East St. Louis Medical Society.....	Herbert C. Jones, Decatur.....	Adolf Decker, Chicago.....	Meets monthly from Sept. to June.
German Medical Society of Chicago.....	G. Futterer, Chicago.....	D. W. Keld, Jacksonville.....	Every two weeks
Jacksonville Medical Club.....	C. P. Thompson, Jacksonville.....	Wm. L. Baum, 103 State St., Chicago.....	1st Saturday September, March and June
Medico-Legal Society of Chicago.....	N. S. Davis, Jr., Chicago.....	J. N. Washington, Chicago.....	Monthly
North Chicago Medical Society.....	Carl Wagner, Chicago.....	E. M. Eckard, Peoria.....	1st and 3d Tuesdays of each month, Sept. to June
Ottawa City Medical Society.....	J. C. Hatheway, Ottawa.....	L. H. Mettler, Chicago.....	Monthly
Peoria City Medical Society.....	E. M. Sutton, Peoria.....	Chas. W. Rook, Quincy.....	2d Thursday of each month
Physician's Club of Chicago.....	President Board of Directors.....	Thos. Warloe, Chicago.....	3d Thursday of each month
Quincy Medical and Library Association.....	Joseph Robbins, Quincy.....	John S. Davis, Chicago.....	1st and 3d Tuesday of each month
Scandinavian Medical Society of Chicago.....	Geo. A. Torrison, Chicago.....		
South Chicago Medical Society.....	Chas. F. Swan, Chicago.....		
Tri-City (Venice, Granite City and Madison) Medical Society.....			
County.	President.	Secretary.	Time and Place of Meeting.
Adams County Medical Society.....	Otis Johnson, Quincy.....	C. D. Center, Quincy.....	Monthly, on 2nd Monday at Quincy
Bureau County Medical Society.....	S. W. Hopkins, Walnut.....	A. E. Owens, Princeton.....	2nd Thursday of Nov. and May
Bond County Medical Society.....	B. E. Coop, Greenville.....	C. C. Gordon, Greenville.....	Meets in September and April
Carroll County Medical Society.....	J. Hallet, Launk.....	H. S. Metcalf, Mt. Carroll.....	
Calhoun County Medical Society.....	P. C. Barry, Hardin.....	T. O. Hardesty, Kampsville.....	
Clay County Medical Society.....	J. M. Boyles, Flora.....	W. E. Burgett, Louisville.....	Quarterly at Louisville
Champaign County Medical Society.....	John Laughlin, Rantoul.....	A. S. Wall, Champaign.....	Thurs. nearest middle of month, Burnham
Clinton County Medical Society.....	W. T. Gordon, Carlyle.....	M. Broening, Carlyle.....	May, Aug., Nov., and Feb., at Carlyle
Crawford County Medical Society.....	T. N. Rafferty, Robinson.....	John Weir, West York.....	2d Thurs. in July, Sept., Nov., Jan. & May
DeWitt County Medical Society.....	A. E. Campbell, Clinton.....	J. H. Tyler, Clinton.....	2d Tuesday in Jan., April, July and Oct.
Douglas County Medical Society.....	Maud E. Nichols, Tuscola.....	W. E. Rice, Tuscola.....	1st Thursday in Feb., May, Aug. and Nov.
Fulton County Medical Society.....	W. E. Shallenberger, Canton.....	D. S. Ruy, Cuba.....	
Gallatin County Medical Society.....	Alex. H. Colvard, Shawneetown.....	Geo. P. Cassidy, Shawneetown.....	1st Monday in May at Carthage
Hancock County Medical Society.....	C. L. Ferris, Carthage.....	R. L. Casburn, Carthage.....	
Henderson County Medical Society.....	Isaac F. Harter, Stronghurst.....	W. D. Henderson, Biggsville.....	
Henry County Medical Society.....	L. A. Terry, Geneseo.....	H. N. Hedlin, Kewanee.....	
Jo Daviess County Medical Society.....	H. T. Godfrey, Galena.....	D. G. Smith, Elizabeth.....	
Kankakee County Medical Society.....	Geo. H. Lee, Kankakee.....	J. H. Roy, Kankakee.....	
Lake County Medical Society.....	L. M. Bergen, Highland Park.....	A. C. Haven, Lake Forest.....	1st Thursday of each month
LaSalle County Medical Society.....	R. W. Bower, Sheridan.....	E. H. Butterfield, Ottawa.....	Annually, 3rd Tuesday in April

CALENDAR OF MEDICAL SOCIETIES—Continued.

District.	President.	Secretary.	Time and Place of Meeting.
Livingson County Medical Society.....	J. J. Pearson, Pontiac.....	John Ross, Pontiac.....	3d Tues. in April and Oct. at Carlinville
Macoupin County Medical Society.....	J. S. Collins, Carlinville.....	J. P. Matthews, Carlinville.....	1st Tuesday of each month at Carlinville
McDonough County Medical Society.....	D. A. Blair, Abingdon.....	S. C. Strummen, Macomb.....	1st Thursday of each month at Bloomington
McLeone County Medical Society.....	Chas. E. Chapin, Bloomington.....	F. C. Vandervort, Bloomington.....	1st Tuesday in May, 1901
Montgomery County Medical Society.....	W. W. Douglas, Hillsboro.....	Jos. M. Trigg, Farmersville.....	2d Tuesday of each month at Jacksonville
Morgan County Medical Society.....	J. C. Franken, Chautauville.....	Edward Bowe, Jacksonville.....	2d Thursday of each month.
Moultrie County Medical Society.....	B. E. McMennamy, Bethany.....	J. W. Mayes, Sullivan.....	Quarterly.
Pike County Medical Society.....	L. J. Harvey, Grigsbyville.....	R. H. Main, Barry.....	1st Wednesday in January and July
Physicians' Protective Assn. of Jackson Co.	G. M. McKaney, Oregon.....	H. A. Mix, Oregon.....	2d and 4th Saturday of each month
Rock River Valley Medical Association.....	W. W. Essick, Murphysboro.....	F. A. Sead, Murphysboro.....	2d week in June and December
St. Clair County Medical Society.....	A. G. McBride, Sterling.....	A. L. Miller, Dixon.....	Monthly, 2d Friday at Belleville
Schuyler County Medical Society.....	Julius Kohl, Belleville.....	B. Portuondo, Belleville.....	Monthly
Saline County Medical Society.....	J. A. Harvey, Rushville.....	C. W. Ball, Rushville.....	1st Monday in each month.
Sangamon County Medical Society.....	J. W. Talbman, Harrisburg.....	J. R. Baker, Harrisburg.....	Monthly, on 2d Monday at Springfield
Stephenson County Medical Society.....	J. N. Dixon, Springfield.....	B. B. Griffith, Springfield.....	Annually
Shelby County Medical Society.....	J. B. Litzell, Orangeville.....	J. F. Fair, Freeport.....	2d Friday evening of each month.
Shelby County Medical Society.....	Wm. J. Eddy, Shelbyville.....	A. G. Mizell, Shelbyville.....	2d Tuesday of each month
Vermilion County Medical Society.....	D. R. Sanders, Jonesboro.....	T. Lee Agnew, Anna.....	Quarterly
Will County Medical Society.....	E. B. Cooley, Pilot.....	E. E. Clark, Danville.....	Semi-Annually
Wabash County Medical Society.....	G. M. Peairs, Joliet.....	E. R. Larned, Joliet.....	2d Tuesday each month
Winnebago County Medical Society.....	Norman Leeds, Belmont.....	J. B. Maxwell, Mt. Carmel.....	1st Monday of Jan., April, July and Oct.
Warren County Medical Society.....	T. N. Miller, Rockford.....	J. H. Frost, Rockford.....	1st Tuesday in May
White County Medical Society.....	Cynthia A. Skinner, Monmouth.....	Adella Nichol, Monmouth.....	
Williamson County Medical Society.....	W. W. Apple, Carmi.....	W. A. Steele, Carmi.....	
Woodford County Medical Association.....	W. H. Bentley, Marion.....	G. W. Evans, Marion.....	
	C. E. Davis, Peoria.....	Frank Stubbiefield, El Paso.....	
District.	President.	Secretary.	Time and Place of Meeting.
Aesculapian Society of the Wabash Valley Association	Z. T. Baum, Paris.....	H. McKennan, Paris.....	Meets May 16, 1901, at Mattoon
Association Military Surgeons of Illinois.....	Col. Nicholas Senn, Chicago.....	Lt. Col. Chas. Adams, Chicago.....	Annually, Chicago or Springfield
Brunard District Medical Society.....	J. L. Lowrie, Lincoln.....	Katherine Miller, Lincoln.....	4th Thursday of Jan., April, July and Oct.
District Medical Society of Central Illinois.....	J. N. Nehus, Taylorville.....	C. R. Spicer, Taylorville.....	Last Tuesday in April and October
Fox River Valley Medical Association.....	Catherine B. Slater, Aurora.....	H. T. Cahagan, Elgin.....	At Elgin in May and at Aurora in Nov.
Galva District Medical Society.....	W. A. Grove, Galva.....	C. T. Hall, Kewanee.....	Annually, 1st Tuesday in May at Galva
Iowa & Illinois Cent. District Medical Assn.	C. C. Carter, Rock Island.....	G. E. Decker, Davenport, Ia.....	Quarterly
Medical & Surgical Society of Western Ill.	H. W. Smith, Roodhouse.....	H. A. Chapin, Whitehall.....	
Military Tract Medical Association.....	E. J. Sutton, Canton.....	C. B. Horrell, Galesburg.....	
North Central Illinois Medical Association.....	F. C. Robinson, Wyanet.....	Geo. A. Dicus, Sreator.....	At Kewanee
Southern Illinois Medical Association.....	W. F. Grinslead, Cairo.....	O. B. Ormsby, Murphysboro.....	Annually, 1st Tuesday in December
Tri-County Medical Society.....	B. S. Evans, Watska.....	Leroy Jones, Hoopesston.....	Metropolis, May 16, 17, 1901.
			1st Tuesday in June and December

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